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Developing Civic-Mindedness in Middle- and High-School Students Using Service-Learning

James Hopper

EAST Initiative, james@eaststaff.org

Sheila Stowers

Arkansas State University - Main Campus, sstowers@astate.edu

Christy J. Brinkley

Arkansas State University - Main Campus, cbrinkley@astate.edu

Olivia Smith

Arkansas State University - Main Campus, osmith@astate.edu

David Saarnio

Arkansas State University - Main Campus, dsaarnio@astate.edu

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Developing Civic-Mindedness in Middle- and High-School Students Using Service-Learning

James Hopper, Sheila Stowers, Christy J. Brinkley,
Olivia Smith & David Saarnio, Ph.D.



What is the goal?

“The goal of education is not to increase the amount of knowledge but to create the possibilities for a child to invent and discover, to create men who are capable of doing new things.”

-Jean Piaget



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Service-Learning

- Service-Learning improves:
 - Academic Achievement
 - Attendance
 - Attitudes toward self, school, and learning
 - Behavior
 - Civic engagement
 - Social skills

(Celio, Durlak, & Dymnicki, 2011;
Conway, Amel & Gerwein, 2009;
Scalise, Douskey, & Stacy, 2018)

- Generalizability
 - Across educational levels
 - Regardless of academic measures used (objective or subjective)
- Additional Research Needed
 - RCT's
 - K-12 students
 - Using objective measures

(Conway, Amel & Gerwein, 2009;
Yorio & Ye, 2012)

Civic Mindedness

Using service-learning to increase student civic engagement in their communities is effective (Kellshaw, Lazarus, & Miner, 2009). Additionally, students get the opportunity to practice problem solving, collaboration, and applied learning.

In spite of the sometimes singular focus on high stakes testing, teachers are using service-learning to increase civic-mindedness and are finding success both inside their classroom and in their communities (Ponder, Veldt, & Lewis-Ferrell, 2011).



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Service-learning + STEM = Increased Civic Mindedness

- Project Based Learning (PBL) is common in a variety of classrooms and a great place to start
- Service-learning (SL) goes beyond PBL
 - Real Clients
 - Real Problems
 - Real Chance for Failure and Success
 - Student Choice
 - Student Responsibility
 - Student Reflection
 - Sophisticated Technology

What does this look like?

Smithsonian exhibit unveiled by BIC EAST students

By REVISBLAYLOCK
Town Crier News Staff

A team of Buffalo Island Central High School EAST students partnered with Smithsonian's Museum on Main Street Division and EAST Initiative in a pilot program named "The Way We Worked."

Jill Sanders, BIC EAST facilitator said her students were invited to work on the project by the EAST Initiative. "This is something the Smithsonian does every year using a different theme," she said. "The students have worked all year and have done an outstanding job of documenting and sharing the history of Buffalo Island from swampland to the largest row crop county in the nation."

Student contributors are Chris Renteria, Jace Couch,

Erica Hunt, Colin Weatherly and Currie Wattigney.

All of the hard work was worth it when the students unveiled their new exhibit "The Way We Worked," at the Buffalo Island Museum in Mosette on Thursday, May 10. The public was invited to view the exhibit. BIC fourth grade students had the opportunity to visit the exhibit

downstairs and take a tour of the upstairs (old tools) using the automated iPads telling the story by local men and women of the tools on display. Also HP Reveal apps can be downloaded and used with the exhibits.

The large screen television and video equipment in the exhibit area tells the history of the area by local historians interviewed by the students.

Among those featured on the videos were Nan Snider

and Buddy Jones, who were among the special guests viewing the new museum exhibit.

Snider of Monette talked about the old gins and railroads in the area along with other interesting facts. Jones, manager of Adams Gin, the largest gin in the world located in Leachville, gave a history of the gin. Adams Gin located in Leachville in 1902.

Students received a grant which was used to purchase iPads for the interactive tour. Visitors will be able to view and hear a live description of the tools and how and when they were used in the development of farming.

The students developed an East Story map which is on the Smithsonian website. The link is <https://museummainstreet.org/content/buffalo-island-swamp-farmland>.

BIC EAST team offered a thank you to Buddy Jones, Adam's Gin, Red Palmer, Nan Snider, Jerry McAffee, Edwin Dunigan, Doodle Taylor, Rudy Anderson, Rob Rash,



Chris Renteria (left) and Jace Couch (right), BIC EAST students show the Smithsonian exhibit "The Way We Worked." Also pictured are Buddy Jones and Nan Snider who were featured in the video.



Sandra Kennett gets a lesson on the automated iPad tour of the tools on exhibit at the Buffalo Island Museum.



BUGS?

bing ather, son

(son) was transported to a hospital where he later died.

The suspect, Ricky Moore, 65, was taken into custody. Bond was set Monday at \$50,000.

Chief Skinner said the case is still pending and anyone with information should contact the Manila Police Department.

uncil e of lots

er Riley said he would get the bid done and get back with bid buyers.

They asked the wishes of how to sell the property. Street now owned by

we want to take sealed bids. \$7,450 in the prop-



BIC EAST team wins Girls of Promise Tech for Good

By REVISBLAYLOCK
Town Crier News Staff

Buffalo Island EAST students recently won the Girls of Promise Tech

would be choosing the top winner. Not only did the team as a whole do an excellent job creating the augmented reality app, they did an outstanding job of presenting their

starting speaking Spanish and got the audience's attention and then began demonstrating their program.

Other team members include Makayla Cole, Gabriela Contreras

BIC EAST students present "Remembering the Forgotten War"

By REVISBLAYLOCK
Town Crier News Staff

Buffalo Island Central EAST students, under the direction of facilitator Jill Sanders, recently presented a Readers Theater of Oral History from the Korean War.

The presentation was the grand finale of months of hard work and dedication to record firsthand remembrances of the Korean War (sometimes called The Forgotten War) as told by local men who were there.

The project, jointly sponsored by the Butler Center of Arkansas Studies, a unit of the Central Arkansas Library System and the EAST Initiative beyond the Bell project, is funded by the EAST Initiative and made possible by the Arkansas Department of Education. Heading up the project was BIC senior Cadyn Qualls, editor.

ern. They never asked for the recognition they deserved."

Cadyn said she did not know much about the Korean War before she started the project. The history of the Forgotten War came alive for the young students as they interviewed the veterans and gathered facts about the war that took place long before they were born.

Information was collected, edited and performed by BIC students. Korean War veterans honored included Arthur Phelps, Verlin Williams, Arlie Williams, Edwin Dunigan and Billy Jack Simpkins.

They were all special guests at the presentation held Wednesday, May 2. Serving as narrator for the Readers Theater was Krista Cox. Readers included Cadyn Qualls (Mr. Phelps); Colin Weatherly (Mr. Williams); Harris McCord (Mr. Williams); Katie Fry and Meagun Love

Rose, Currie Wattigney, Lexa Whiteley, Destanie Shibert, Trevor Penix and Paston by

Interviewees included Erica Hunt, Currie Wattigney, Destanie Shibert, Trevor Penix, Cadyn Qualls and Currie Bial.

Students expressed their appreciation to George West, Butler Center Education Outreach Coordinator, who helped them so much in the endeavor.

The project will be part of the Arkansas History Hub, hosted by the Butler Center, and teachers from all over can use this information in their classrooms. The BIC EAST students are excited to be part of something that will be around five years to come.



Five Korean War veterans who participated in this project. Pictured are, from left: Billy Jack Simpkins, Arlie Williams, Arthur Phelps, Edwin Dunigan, Verlin Williams.



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What does this look like?

Occupational Therapist Marciell Baker leads the virtual Reality On Therapy app with its creators, Blake Battles Jr and Dillon Hall Jr.

VAN BUREN COUNTY DEMOCRAT

WEDNESDAY, OCTOBER 31, 2018 • VOL. 110 NO. 11 • P. 2 • WWW.VANBURENCOUNTYDEM.COM

South Side students continue work on virtual reality app

Hall, Battles create application to assist in occupational therapy

Alan Kramer

Recent work by two South Side students has resulted in the development of a virtual reality app that will assist in occupational therapy. The app, called "Virtual Reality On Therapy," was developed by Blake Battles Jr and Dillon Hall Jr. The app is designed to help students with physical disabilities and is being used in occupational therapy sessions at the University of Arkansas at Little Rock.



Blake Battles Jr and Dillon Hall Jr are the creators of the virtual reality app. They are currently students at the University of Arkansas at Little Rock. The app is designed to help students with physical disabilities and is being used in occupational therapy sessions at the University of Arkansas at Little Rock.

APP

Continued from Page 1A

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NORTHWEST ARKANSAS

NORTHWEST ARKANSAS Democrat Gazette


MONDAY, OCTOBER 16, 2017

Program brings back memories

Students help retirement home residents 'revisit' favorite places

AMBER TRAYLOR

Students at the University of Arkansas at Little Rock are helping retirement home residents revisit their favorite places. The program, called "Revisit Your Favorite Places," is designed to help residents with memory loss and is being used in retirement home settings at the University of Arkansas at Little Rock.



Amber Traylor is a student at the University of Arkansas at Little Rock. She is currently participating in the "Revisit Your Favorite Places" program, which is designed to help retirement home residents revisit their favorite places. The program is being used in retirement home settings at the University of Arkansas at Little Rock.

Stylized

Page 2 • SATURDAY, NOVEMBER 12, 2016

Gosnell EAST students create street signs

Students help retirement home residents 'revisit' favorite places

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Students at the University of Arkansas at Little Rock are helping retirement home residents revisit their favorite places. The program, called "Revisit Your Favorite Places," is designed to help residents with memory loss and is being used in retirement home settings at the University of Arkansas at Little Rock.



Students are working on creating street signs for the Gosnell EAST project. The signs are designed to help residents with memory loss and are being used in retirement home settings at the University of Arkansas at Little Rock.

Gosnell EAST students create street signs

Students help retirement home residents 'revisit' favorite places

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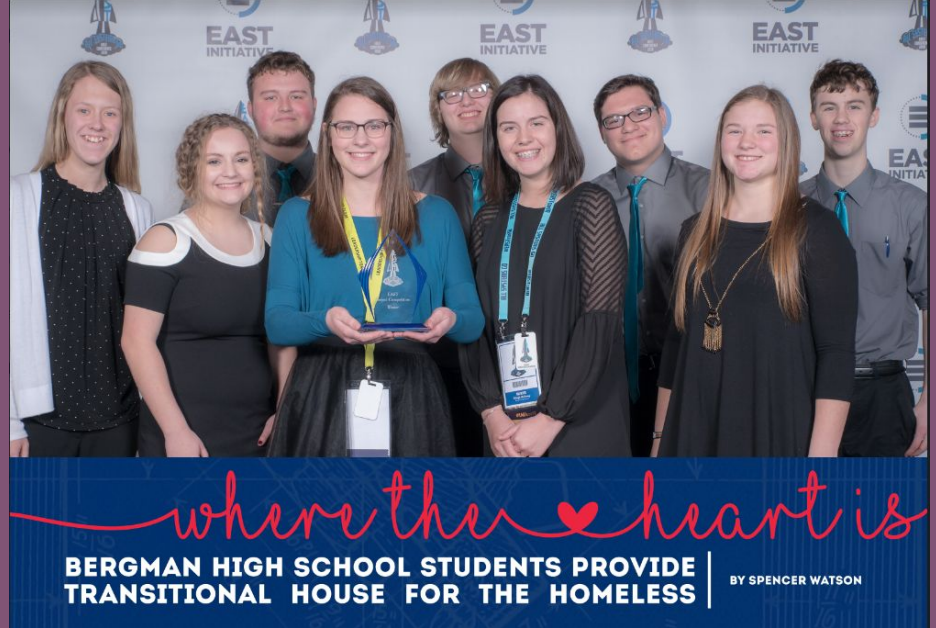
What does this look like?



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What does this look like?



**BERGMAN HIGH SCHOOL STUDENTS PROVIDE
TRANSITIONAL HOUSE FOR THE HOMELESS**

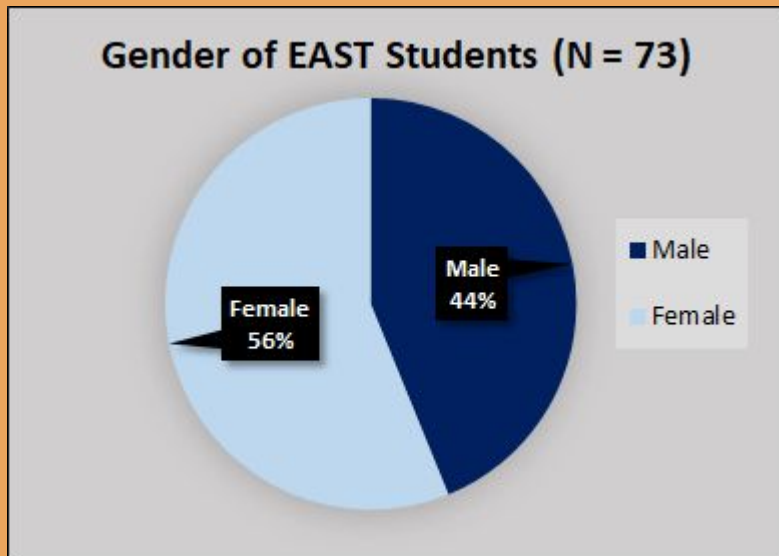
BY SPENCER WATSON



Participants

- 73 Students
 - 29 Middle school
 - Mean age 11.2
 - 44 High school
 - Mean age 16.5

Notes: Rural, Title I schools, Delta Region



Data Collection Methods

Example Survey Items:

Now we want to know how you benefitted from EAST:

For each question below, please indicate how much you agree by marking your answer.

Being in EAST...	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. ...helped me help my community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. ...helped me become more aware of problems in my community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. ...helped me feel important to my community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. ...helped me believe I can make important changes in my community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Example Focus Group Questions:

End of Year Focus Group Questions

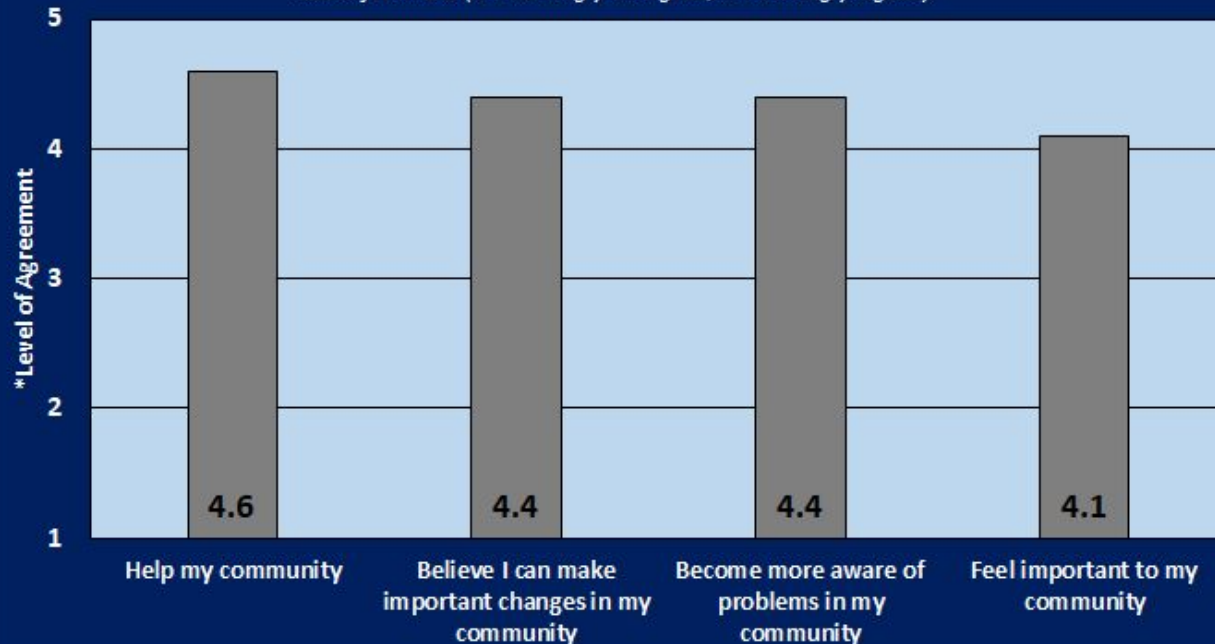
1. What was your favorite part of being in EAST?
2. What was your least favorite part of being in EAST?
3. What did you learn about your community from being in EAST?
4. What was your best project?
5. What did you learn about yourself from being in EAST?
6. What did you learn in EAST that you have been able to use in other classes?
7. How do you think being in EAST has prepared you for the future?

- Surveys
 - 73 end-of-year surveys were administered to students
 - measured perceived impact of EAST
- Focus Groups
 - 12 focus groups
 - 8 high school
 - 4 middle school

Survey Results: Perceived impact of EAST on civic mindedness

“Being in EAST Helped Me...” (N = 73)

**Scale from 1-5 (1 = Strongly Disagree, 5 = Strongly Agree)*



Focus Group Responses

- Over 30 positive references were made to the community across focus groups
 - 18 of these references were mentioned outside of the question “What did you learn about your community from being in EAST?”
- These “Community” references focused on 2 main themes:
 - Community involvement
 - The students working with the community
 - The community working with the students
 - Community awareness
 - The students becoming aware of problems in the community



Sample Community Involvement Responses

- Focus Group Question: “What was your favorite part of being in EAST?”
 - “Community outreach, helping to solve the problems” – HS student
 - “You get to help others and your community” – HS student
 - “It’s easy to find ways to help the community” – MS student
 - “Helping the community and school” –MS student



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Sample Community Awareness Responses

- Focus Group Question: “What did you learn about your community from being in EAST?”
 - “There are a lot more problems in the community than you think” – HS student
 - “A lot of problems that need fixed” – HS student
 - “We are more aware of the community’s problems than before” – MS student
 - “There’s more to fix than we think” – MS student



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In Their Words

“I’ve always been a part of the community, but EAST taught me how to partake in the community to make changes for the better.”

– H.S. Student



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In Conclusion

Researchers, we need your assistance in furthering this line of research.

- 25,000 students in grades 2-12 using technology to solve problems in their communities.
- Evaluation of program in general
- Follow up studies focused on quantitative outcome measures
- International Association for Research on Service-Learning & Community Engagement Conference (Oct 23-25, Albuquerque, NM)



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In Conclusion

Teachers/Administrators, challenge your students and teachers to spend some time engaged in service-learning.

- Start small, pilot the program
- Find a teacher that is willing to try something new in their classroom
- Suggest one client, one problem, pitch multiple solutions, select one winning pitch and then implement as a class
- Give students and the teacher a chance to reflect and share
- Work with local and national groups, EAST, 4-H, CNCS. National Youth Service Council,
- National Service-learning Conference April 14-16, 2019 (NYLC.org)

References

- Celio, C. I., Durlak, J., & Dymnicki, A. (2011). A meta-analysis of the impact of service-learning on students. *Journal of Experiential Education*, 34(2), 164-181.
- Conway, J. M., Amel, E. L., & Gerwien, D. P. (2009). Teaching and learning in the social context: A meta-analysis of service learning's effects on academic, personal, social, and citizenship outcomes. *Teaching of Psychology*, 36(4), 233-245.
- Kelshaw, T., Lazarus, F., & Minier, J. (2009). *Partnerships for service-learning: Impacts on communities and students*. John Wiley & Sons.
- Ponder, J., Vander Veldt, M., & Lewis-Ferrell, G. (2011). Citizenship, Curriculum, and Critical Thinking beyond the Four Walls of the Classroom: Linking the Academic Content with Service-Learning. *Teacher Education Quarterly*, 38(4), 45-68.
- Scalise, K., Douskey, M., & Stacy, A. (2018). Measuring learning gains and examining implications for student success in STEM. *Higher Education Pedagogies*, 3(1), 183-195.
- Weber, J. E., & Weber, P. S. (2010). Service-learning: An empirical analysis of the impact of service-learning on civic mindedness. *Journal of Business, Society and Government*, Spring, 79-94.
- Yorio, P. L., & Ye, F. (2012). A meta-analysis on the effects of service-learning on the social, personal, and cognitive outcomes of learning. *Academy of Management Learning & Education*, 11(1), 9-27.





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Arkansas State's Office of Behavioral Research and Evaluation can be reached at OBRE@astate.edu.
EAST can be reached at EASTinfo@EASTstaff.org, or www.EASTinitiative.org.
James Hopper can be reached at James@EASTstaff.org or 501-371-5029.



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