

Service-Learning: Increasing Academic Engagement in At-Risk Youth in Southeast Ohio

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Abstract

At-risk youth in Southeastern Appalachian Ohio are not excelling in academics at the same rates as students in the rest of the United States. This area is plagued by high dropout rates and a lack of interest in post-secondary education. Increased academic engagement can lead to higher academic achievement and greater life-long success for these students. Findings from a study conducted during a summer program show a positive relationship between summer a Service-Learning project and increases in academic engagement. Additionally, the results indicate that Service-Learning can be used as an authentic teaching method in order to help middle school students increase academic achievement.

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In recent years and through a change in United States political leadership, education has been at the forefront of many debates. Global competitiveness has become a great concern not only for politicians, but the general public. Parents, teachers, and civic leaders are recognizing that shortcomings in education have to be addressed immediately. Education in the United States has to be fiscally responsible and provide the best education with the least amount of resources. According to the US Department of Education website (2011) it is the goal of the United States government to ensure that students in the United States are provided with the best instruction and are prepared to compete for jobs on a global level, while being cost effective.

Because of the increased awareness of global competitiveness, academic engagement is an educational measurement that is reported and analyzed (Tinio, 2009). Because academic engagement is a predictor of academic achievement, (i.e., specific test scores), it has become a very important aspect of choosing which programs are to be implemented in public school districts nationwide. It has been demonstrated that many factors affect a student's engagement in what they are learning (Ferry, 2008; Lavoie, 2007; Tinio, 2009). These different factors are linked to students' ability to excel in school by not only performing better on tests, but also being able to use the information gained to further their education, join the workforce, and in general, become engaged citizens (Ferry, 2008).

Students who do not have a high level of academic engagement often see school as a chore and something that is useless to their future (Tinio, 2009). This attitude not only leads to lower levels of success in school, but a higher dropout rate, and lack of motivation in the workplace (Leve & Chamberlin, 2007). It is important for educators to focus on academic engagement because it focuses on the whole student and his/her ability to be a part of a school

community and use the information he/she is learning in class. Academic engagement also helps with retention, memory, and focus on academic tasks. According to the Ohio Department of Education school report cards from 2010, one group of students who continuously perform poorly on standardized testing, have low college entrance rates, and high dropout rates are Appalachian Southeast Ohio youth. One way to increase academic engagement in this population is to provide them with service-learning opportunities.

Definitions

Academic achievement. Maria Francesca O. Tinio of De La Salle University Manila in the Philippines has researched academic engagement and for this study, her definition of academic engagement will be used. In 2009 she outlined the areas of academic engagement defined by Hughes, Luo, Kwok, and Loyd.

The three areas of academic engagements as defined by Hughes, Luo, Kwok, and Lyod (2008) are behavioral, emotional, and cognitive. They define Behavior Engagement as being involved in academic, extra-curricular, or social activities. Behavioral Engagement is further divided into three sections. The first section is specific learning behavior, such as: academic effort, attention, being involved in class discussions, and asking questions. The second is the child's compliance with school rules and expectations, in addition to truancy. Lastly, academic engagement is measured by the student's participation in extracurricular activities.

The second subscale identified by Hughes et al. (2008) is Emotional Engagement, defined as a student's reactions, whether positive or negative, to their school surroundings, including both people and activities. Basically this describes how a student interacts and cares

for their school and learning environment and is linked to their connectedness to teachers and peers, and their sense of safety and comfort within their learning environment.

Lastly, Cognitive Engagement is associated with how the student contributes to his or her own education which is determined by how he motivates himself and how much drive he has to succeed. This is not only the grades awarded to a student in school, but also the ability to follow through on assignments, complete work, and go above and beyond the teacher's expectations (Hughes et al., 2008). All three areas are linked to form the academic engagement profile of the student, and helps provide a more complete understanding of students' interactions with people, school work, and educational drive (Sciarra & Seirup, 2008). This study examines areas from all three subsets of academic engagement as outlined by Tinio.

Appalachian Southeast Ohio youth. This term is used in this study to refer to students involved in the program from Athens, Meigs, Washington, and Galia Counties, which are located close to the Ohio River Valley in the Appalachian Mountains.

At risk. This study focuses on an academically at-risk population, a term referring to students that either have an IEP (Individualized Education Plan) in school, receive special education services, qualify for free or reduced lunch, or are at least one grade level behind in reading or mathematics.

Service-Learning. For the purposes of this research, service learning refers to “teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities” (CNCS, 2010).

Review of the Literature

Although there has not been any research conducted examining the link between service-learning and Appalachian students in Southeast Ohio, or even the link between summer Service-Learning programs and academic engagement in general, there have been studies conducted linking academic growth to community service. Also, there is a definite link between academic engagement and increased academic performance. The following literature reviews findings from research that shows evidence of these links.

Children At-Risk

Jacobson (2008) offers an explanation as to why at-risk students often do not succeed academically. She discusses the need to individualize education and provide access to early intervention programs. Because a majority of the students identified as at-risk have an IEP (or will at some point in their education) and have identified learning problems, it is important for school personnel and educators to better evaluate and pursue different educational outlooks as early as possible (Jacobson, 2008).

Pogrow (2009) explains that when students are born into poverty, frequently their education is not as much of a priority for their families when compared to families with higher income levels. He identifies specific needs that this group of students has, including more time using authentic teaching and learning methods as well as having teachers emphasize the relationship between job placement and what the student is being taught. Pogrow states this premise is based on the idea that the relationship needs to be made clear for this population between the importance of education and how it relates to their life and home environment. Additionally, many of these students do not have parents who have made education a priority, and they themselves have not been taught the value of education and its important link to their

own future. School for many of the parents was also a scary and intimidating place, just as academics has become for this group of students (Pogrow, 2009).

Vithal (2003) explored the label “at-risk” as a form of stereotyping and exclusion for students living in poverty or below the federal poverty line. She states that many children who have grown up in poverty, both rural and urban, are labeled “at-risk” simply because of their lack of economic resources. This label in itself can be a hindrance for the children it identifies. She states that labels are dangerous but yet sometimes unavoidable. For instance, if a child has a label of “at-risk,” educators often think about what the child can or can’t do without first thinking about how lessons can be altered in order to adapt to the child’s learning style. Vithal indicates that the label of “at-risk” itself can create academic problems for a student.

A Region At-Risk

According to the Coalition of Rural and Appalachian Schools (2008) in 2007, the dropout rate of students in Appalachian Ohio counties was 7.43% as compared with the state average of 6.45% and 5% nationally (“Selected Findings”, 2004). However, dropout rates varied from county to county in the Appalachian region as reported by the Ohio Department of Education, from 30.8% to 0.00% (Coalition of Rural and Appalachian Schools, 2008). These findings are critical because they indicate the general population in Appalachian Ohio is graduating at a lower rate than the rest of the state and country.

According to the 2009-2010 school report cards compiled by Ohio Department of Education and based on state test scores from the Ohio Achievement Test (OAT), three of the largest school districts in Southeast Ohio show a troubling trend of low student achievement. The Trimble Local, Meigs Local, and Athens City school districts all failed to meet adequate

yearly progress and fell in the category of continuous improvement. On average, these three districts only met 90.2 of the 120 performance measures in the state, and 13 of 26 state indicators of effective schools. These numbers are staggering and similar to the majority of other districts in the Appalachian region. This data demonstrates that the current system of education in the Southeast Ohio Appalachian region is not resulting in positive outcomes for students and something needs to be done immediately in order to further engage students and provide them with the best education possible.

Low performance or scores below 400 on state-wide standardized tests are a particular problem in Appalachian Ohio because many schools and districts do not have the money to fund intensive intervention programs or services. Every district works on a very strict budget and serves a population that is on average, at a level below average in terms of socio-economic status (“Vital Statistics, 2008). The money that is coming into the school districts is being used quickly, because of the great need for educational interventions for at-risk students in Appalachia. The at-risk population of students becomes very important to school districts because they are often the individuals that are identified as not passing the state-wide achievement tests by a very small margin. Therefore, with a small amount of intervention it could be possible that these students would be able to break a score of 400 or move into the basic/passing category.

There are many obstacles facing at-risk students in Appalachian Ohio, schools and educational settings should not be a point of exclusion or concern for these young people. In order to remove barriers and social isolation for students, one must first understand the problems encountered by this unique and diverse group. It is obvious from the dropout rates that there are problems unique to this group that contributes to their educational failure. Even

though there is a great deal of information regarding the problems faced by these young people, there is little to no evidence to indicate why these problems exist in school and no research that suggests possible solutions for students in Appalachia.

Academic Engagement

Furrer and Skinner (2003) link areas of academic engagement to academic achievement and school performance. They specifically view emotional academic engagement as a way to improve performance. In their study they found that students who were more engaged emotionally and academically, performed better on a series of educational tasks involving tests, quizzes, and class assignments. They monitored students' relationships with other classmates, teachers, community, and parents and found that the higher the level of engagement, the better the students performed on academic tasks. This study positively correlated academic engagement with academic achievement.

Similarly, in a University of Oklahoma study, the researchers found a link between cognitive academic engagement and academic achievement. They found the more students are actively involved in their own education and learning goals, the more likely they are to be successful in obtaining those goals (Miller, Green, Montalvo, Ravindran, & Nichols, 1996). Their study demonstrated that when students increase their self-efficacy in education and become more aware of their own goals and paths to achieve these goals, their academic achievement increases. This study indicated a significant positive correlation between academic engagement and achievement outcomes, as measured by grades on in-school assignments and tests. Students in the study who were able to state their goals and tell how they were going to accomplish them outperformed students with lower levels of cognitive academic engagement.

Service-Learning

Authentic teaching is a teaching methodology that involves teaching in a way that students can link what they are learning to life beyond the classroom. It is a hands-on way of teaching that is genuine and connected to the real world instead of a simulated experience (Paterson, 2006). Service-Learning is one example of an authentic teaching strategy.

Yost and Soslau (2007) conducted a study in an urban school district where they employed a Service-Learning program to enhance standards-based curriculum. They found a positive correlation between service learning and increased student performance on academic tasks such as in-school assignments and tests, indicating that school districts can benefit from such programs. In the study, urban high school students were given the opportunity to work on out of school Service-Learning projects in their community. They worked on community gardens and building rehabilitations. Through the projects, the students set both academic and service goals and then reflected to see if they had accomplished them at the end of the project. Using the youth-led Service-Learning model, students could plan and implement their own projects with the help of their teachers, resulting in the students greatly benefitting from the project. Many students reported they were more excited about school, which means they were more engaged, and their grades were also positively affected. The students who participated in the program outperformed their peers who did not. Although their research was completed in an urban setting, the program and its findings can be generalized to other settings.

Broward County Public Schools in Fort Lauderdale, Florida have instituted a Service-Learning requirement for their high school students as well as integrated Service-Learning into all levels of their schools. They have seen improvement on both in-school grades and

state-wide academic performance. They have been using Service-Learning as a teaching method since 2009 and the superintendent intends to continue with the program as long as the district continues to see academic results. Students in the district can choose between a variety of different programs in order to finish their Service-Learning requirements, one of which is offered in the summer.

Similarly, in study by the National Youth Leadership Council (2004) the authors interviewed principals nationwide whose schools have taken part in Service-Learning programs. In the study, 2,002 principals were surveyed and of the schools that offer Service-Learning programs, 80% of the principals stated that the programs positively impacted the academic achievement of those involved (Neal, Roehlkepartain, & Kielsmeier, 2004).

Although there is evidence to show that Service-Learning is helping students become more academically engaged throughout the country, there is little documented evidence about the effectiveness of summer Service-Learning programs. More specifically, there is no documentation regarding the effectiveness of this authentic teaching strategy for the at-risk population of students in Southeastern Ohio.

Students who are considered at-risk and those living in Appalachia have documented lower levels of academic achievement as well as lower graduation rates, therefore a Service-Learning program in the summer that allows students to increase their ability to relate to peers, teachers, and create goals, could in turn increase their academic engagement.

Methods

In order to examine the relationship between Service-Learning projects and academic engagement of at-risk youth in Appalachian Southeast Ohio, the researcher surveyed students and parents of students that were involved in a summer Service-Learning program housed at a

local university. The program was developed to give students entering the 6th through 9th grades in Southeast Ohio an opportunity to be involved in youth-led Service-Learning opportunities for six weeks.

Participants

The summer Service-Learning program lasted from 9:00 a.m. until 3:00 p.m. daily for a six-week period. During their time in the program, 87 participants followed a Service-Learning curriculum developed by the program staff that ensured all programs were youth-led and followed a Service-Learning model that included youth voice, community voice, goal setting, academic measures, and reflection. The 87 students were divided into teams of approximately 20 students each. Each team work with three staff members with the team's goal to come up with an environmentally-based Service-Learning project that could be implemented during the six weeks allotted for the program. The students also had the goal of completing 100 hours of direct service during that time. Of the 87 youth that participated in the voluntary program, 66 completed the 100 hours of direct service.

The program was completely free to all who participated and was open to the general population, although based on enrollment records, 89% of the students in the program fell into the "at-risk" category previously defined. All participants were entering the 6th, 7th, 8th, or 9th grade in a Southeast Ohio Appalachian school. They ranged in age from 11 to 16 years old. All students were enrolled into the program from their local school districts and were identified for the program by their teachers, principals, and parents.

Instrumentation

Before beginning the summer program, the participants were asked a series of questions via an anonymous written survey regarding their knowledge of Service Learning.

They were again surveyed at the end of the summer using written anonymous surveys that asked about the impact of the summer on their goals, job training, school engagement, and leadership--all identified components of academic engagement. Parents were also given a survey asking similar questions about their perceptions of their child's growth over the summer.

Pre-service learning student survey. The survey given to the student participants during the first week of the program contained the following questions to which the participants were asked to write short answers. The first question was written to evaluate their previous ability to work within/ be a part of a group, one component of academic engagement.

1. You have probably at some time worked with others to make a plan to solve a problem. Maybe you and a group of friends wanted to go to a ball game. You would have to figure out a day and time to meet, where you would get some money and how you were going to get there. Describe a time that you worked with other people to accomplish something and how it all worked out.

The second question was used to evaluate past experiences with service and whether they previously had used a Service-Learning model.

2. Serving the community often means doing something to make the area where you live a better place to live. Have you done something like this? Please describe what you accomplished, who helped you, and what personal skills you used to get it done.

The next question was used to evaluate perceived leadership, another component of academic engagement.

3. Have you ever led a group (2 or more people) to get something done? If so, what did you like most about the experience? Please describe what you did.

Based on Tinio's (2009) factors that increase academic engagement, the following questions related to positive thoughts about teachers and school, as well as comfort in front of peers were asked.

4. What do you like about your teachers at school?
5. What do you like about your classes or school work?
6. Have you spoken in front of an audience? If so, please describe what it was about.

Post-service learning student survey. The survey given at the end of the program to the participants contained 13 questions. The participants were asked to rate their answer based on a 5-point Likert scale, ranging from 5 = strongly agree to 1 = strongly disagree, and 3 = no opinion. Questions 1 through 10 all related to Tinio's (2009) components of academic engagement. Questions 11 through 13 measured students' interest in doing further work. These questions were chosen to predict whether these students would be receptive to further Service-Learning programs. In the survey, FAST stands for Fun And Service Together.

1. I learned at least 5 new jobs skills at FAST
2. I improved my ability to lead at group at FAST
3. I increased my public/community speaking ability at FAST
4. I was able to put into practice at least one skill I learned at school
5. I am excited to share with my teachers the things I have learned at FAST
6. I have a better outlook on school than I did before FAST
7. I now better understand how to create, set, and achieve academic goals
8. I was able to reach at least 95% of the project goals I set for the summer
9. I am now more prepared to set goals pertaining to jobs in the future
10. I am excited to tell my friends at school about my summer at camp

11. I plan to come back to camp next year
12. I feel that I will lead more community service projects in the future
13. I know how to plan, start, and complete my own service project

Post-service learning parent survey. Parents of participants in the program were surveyed at the end of the 6-week program and were designed to be answered with short answers. The first eight questions were designed to measure parent's perceptions of their child's academic engagement as defined by Tinio (2009). Questions 10 through 12 were written to determine additional impacts (outside of academic engagement) of Service-Learning on the participants.

1. What did your child like best about the FAST program?
2. What do you think your child gained from being a part of the program?
3. What would you like to see changed about the program before next summer?
4. Did your child learn at least 5 new jobs skills this summer as a result of the program?
5. Is your child more prepared to address needs in their community, including talking to community members?
6. Did your child learn a new principle this summer that they can apply to the upcoming year's school work?
7. Is your child more about to set, reach/ complete goals as a result of this program?
8. Did your child make new friends this summer?
9. If your child was not in the program what would he/she be doing this summer?
10. How has your child's attitude about community service changes as a result of this program?

11. Do you think your child will continue to do service projects in your community after summer?
12. How do you think this program will affect your child's school performance in upcoming years?
13. Anything else you would like to share?

Procedures

Participants in the program were fed both breakfast and lunch and were transported via school bus to the program located on a local university campus. They were then transported to their service locations around the county via bus. The sites and projects were determined by the youth in each group. The program was funded by a Summer of Service grant through the Corporation for National and Community Service (CNCS).

During the summer program, the participants created and implemented a variety of Service-Learning projects that included invasive species removal through the Wayne National Forest, work in the campus recycling center, park rehabilitation, and many others. Under direction of the staff, the students followed a curriculum that ensured they were working towards their goals as a group, the community's goals, and academic goals. The program staff was instructed to closely follow the Service-Learning curriculum to ensure that all participants were receiving the same instruction. The curriculum was designed for projects of varying lengths over the six-week time span of the program. The following section details the service-learning curriculum utilized during the FAST project.

Service-Learning Curriculum

Step One:

What is community service vs. Service Learning?

- Please know how important this is to all the students involved. Many of them don't have much opportunity to provide service to others.
- It must be completely youth led, you are a facilitator only.
- You can ask your group what they know about community service and ask them to give you ideas of service they have done in the past.
- It is important to have them elaborate on how it helped their target population.
- Brainstorm and write down ideas that your team can come up with of things they might want to do in terms of service in the community here in [the county].
 - Simply a brainstorm do not discount any possibilities
 - Keep the lists in your team staff binder for later use
- Talk to them about the importance of their input and how much their ideas or “youth voice” can impact their community.
- Ask for ideas or examples of how they have seen young people help out in their community.
 - Could be at church, school, ball fields, etc.
 - Make notes of these as well.

Step Two:

Decide on a Service Project

- Go back to the lists that you made previously.
- Ask the kids in your group the following questions
 - What is your favorite thing to do in the summer?
 - What is your favorite thing to do at home?

- Keep notes of all the things mentioned and make notes verbally about how there are some similarities in the group.
- Ask the children if the things they like to do at all match up with any of the ideas of community service they talked about before.
- If not please see if they can think of things they might be able to do to help others that they would still enjoy.
- Narrow down to a list of 5 choices
 - Then ask
 - What might benefit the most people?
 - What would make the biggest difference?
 - What can we afford? (Very cheap or free)
 - What is really possible for us to do in 6 weeks?
 - Consider your recipient
 - What best meets their needs?
 - When are they available?
 - What are their limitations/ restrictions?
 - Submit your project idea to the Service Learning Coordinator.

Step Three:

Determine Steps and decide on Roles

- As a team, discuss what needs to be done in order to accomplish your goal.
- Make a brainstorm list
- Go through the list and put it in order.
 - Remember to include asking permission from area agencies

- In order to donate money
- Using University Space
- Marketing Uptown, etc.
- Organize your clear list of steps.
- Advertise what you are doing.
 - Make flyers that can be posted at the [Project] Office so all teams will know what each other is working on!
 - Plan how you could artistically present your project to the camp the last week!
 - Make sure every member of the team has something to work on and a specific role.

Step Four:

Start on your project and the first steps

- Create a plan of how long the purposed service project will take, what materials will be needed, and explain the learning objectives. –This should be in writing.
- Help each young person in the group uphold their commitment to the project and the roles that they were assigned.
- Work with the service learning coordinator to link the projects created by your group to our partner agencies and the needs we have identified in the county.

Step Five:

Finish project Steps

- Complete the Project!

Step Six:

Reflection

- Did you accomplish what you set out to do?
- What was learned? Be specific! – Submit to Service Learning Coordinator
- What were your feelings?
 - Successes and Challenges
 - It is good to document these and place with your community service information.
- Do something fun for yourself.
- Have an award ceremony for your group.
- Present your project to camp! We can put completed projects in the newsletter and in the morning notes.

As goals were met and projects completed the students participated in weekly art-based reflection activities that varied from murals in local schools to theater performances. This allowed participants to think critically about what they learned and accomplished and allowed them to celebrate their successes.

Service Learning Projects

The FAST (Fun And Service Together) project was formatted like a summer camp. It was designed to be both fun and productive. The days were filled with work on projects that were planned by the program participants. Participants were bussed from around the Southeastern Appalachian region to a local university campus via local district school buses. Upon arrival, students were fed breakfast and then went to their morning team meetings. In these meetings the details of the day were discussed and then the team left the university to

work on their projects. They were bused again to these projects and spent the day on the project sites. All of the projects were environmental in focus and were driven by the ideas of the team members.

The majority of the funding for materials for these projects was either provided by a host site or fundraising done in the form of bake sales and lemonade stands by the teams themselves. The projects included invasive species removal at Wayne National Forest, planting trees and shrubs at a local water shed, and rehabbing a play ground in a nearby town, where many of the participants were from. There were also groups that worked with the recycling center on campus to redistribute office supplies to local school districts and still another group that worked to paint science-themed murals at a local elementary school.

Participants spent the day working on their projects and taking breaks for fun and games. Lunches were delivered to their work sites and participants worked into the early afternoon. After the projects were wrapped up for the day, the teams would complete a reflection activity and then ride a bus back to the university where they departed for home.

Researcher Bias

As both the director of the program and as a researcher, I was trying to determine if there was a relationship between the program and academic achievement, to measure the success of the program, and to hopefully be able to secure additional funding for similar programs for the population served in the future. Although it was my hope there would be positive gains due to the program, this bias is eliminated because I used subjective data straight from the parent and student surveys to measure program effectiveness, which were not impacted by my opinion as director or researcher.

As a researcher, it is important to understand the bias that is represented in the fact that I grew up in Appalachian Ohio and also have worked with this at-risk population as a program coordinator for after school and summer programs for two years, but am currently a graduate student pursuing a degree in education. Because of my background, the findings from this study validates ideas and opinions that I have about young people from this population, while offering focused ideas for teachers to better serve this population. Although, because I am not personally a member of the at-risk community, I cannot fully understand what many of these young people have been through, therefore the questions asked were based on an outsider's perspective of the population. The study did not address outside factors such as the impact that parents have on education, or the length of time spent in a certain school district. Rather, the focus of the questions was on how education can better serve at-risk youth. Because this study focused on academics, my perspective as a school professional was a problem, nor was my history of growing up in Appalachia. If anything, these attributes helped bring insight and sensitivity to the instruments used in the study.

Results

Of the 91 youth enrolled in the program at the beginning, 82 individuals completed the pre-service learning program survey resulting in a 91% response rate.

Data Analysis

Each question in the survey was scored on a scale of 0 to 3. Zero being the lowest score exhibiting the least amount of qualities of academic engagement and 3 exhibiting the most qualities of being academically engaged. The first question dealing with academic engagement,

You have probably at some time worked with others to make a plan to solve a problem. Maybe you and a group of friends wanted to go to a ball game. You would have to figure out a day and time to meet, where you would get some money and how you were going to get there. Describe a time that you worked with other people to accomplish something and how it all worked out.

was scored in the following manner:

A score of 3 was given if in the participants' answers showed leadership, cooperation, and plans with goals. A score of 2 was given if they showed cooperation and plans, but lack of leadership. A score of 1 was given if the participant showed cooperation only, and a score of 0 was given if none of the above were demonstrated.

The second question dealing with participation in service learning,

Serving the community often means doing something to make the area where you live a better place to live. Have you done something like this? Please describe what you accomplished, who helped you and what personal skills you used to get it done.

used the following scoring guidelines:

A score of 3 was awarded if the student used all parts of the Service-Learning model correctly. A response earned a score of 2 if the student used a minimum of three parts of the model correctly. A score of 1 was awarded if any part of the model was used correctly and a 0 if none of the Service-Learning model was used correctly.

For the third question dealing with leadership,

Have you ever led a group (2 or more people) to get something done? If so, what did you like most about the experience? Please describe what you did.

the following scores were used:

A score of 3 was awarded if the student led a group of two or more before. A response earned a score of 2 if the student had led one other person in a project before. A score of 1 was recorded if the student mentioned any leadership characteristics but had not led. Lastly, a score of 0 was awarded if no leadership was mentioned by the student.

The fourth question related to relationships with teachers at school, and asked, "What do you like about your teachers at school?"

The following scores were awarded: If the student listed three or more positive attributes of their teacher, a score of 3 was given. A 2 was scored if the student listed two or more positive attributes of their teacher. A score of 1 was awarded if only one positive attribute was listed. Lastly, a score of 0 was documented if no positive attributes were listed.

Question number five was linked to their opinion of school and assignments and asked, "What do you like about your classes or school work?"

Scores were awarded based on the following:

A score of 3 was awarded if the student stated three or more positives. A score of 2 was recorded for two positive attributes of school. A score of 1 was assigned if the student only reported one positive thing about school. A score of zero was given if the student reported no positive attributes of school.

In order to measure participants' comfort level leading a group and talking in front of peers question number six asked, "Have you spoken in front of an audience? If so, please describe what it was about." If participants stated they had spoken in front of an audience more than once, a score of 3 was awarded. If they had spoken in front of an audience one time a score of 2 was given. A score of 1 was given if the student recorded that he/she had never

spoken in front of an audience but would like to. A score of 0 was recorded if students said they had no desire to speak in front of an audience.

Participant Pre-Service Learning Program Results

All responses were read and scored using the scoring guidelines described above.

Table 1 provides a summary of the scores by question.

Table 1

Student Pre-Service Survey Scores by Question

Scores	Academic Engagement	Service Learning	Leadership	School Relationships	School Opinion	Comfort in front of peers/ audience
3	13	0	21	3	11	22
2	26	2	27	14	12	31
1	29	43	19	31	39	11
0	11	21	12	31	20	17
No Answer	3	16	3	*0	*0	11

* Note. There were no answers scored with a zero for questions 4 and 5 because if a student left those blank there was a score of zero, due to the nature of the question.

Figure 1 provides a graphic representation of the data in Table 1, making it easier to visually make comparisons for each question by score.

Figure 1

Pre-Service Learning Student Responses and Academic Engagement

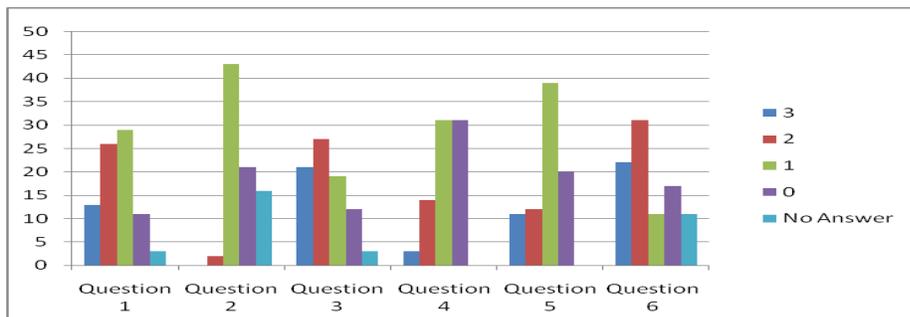
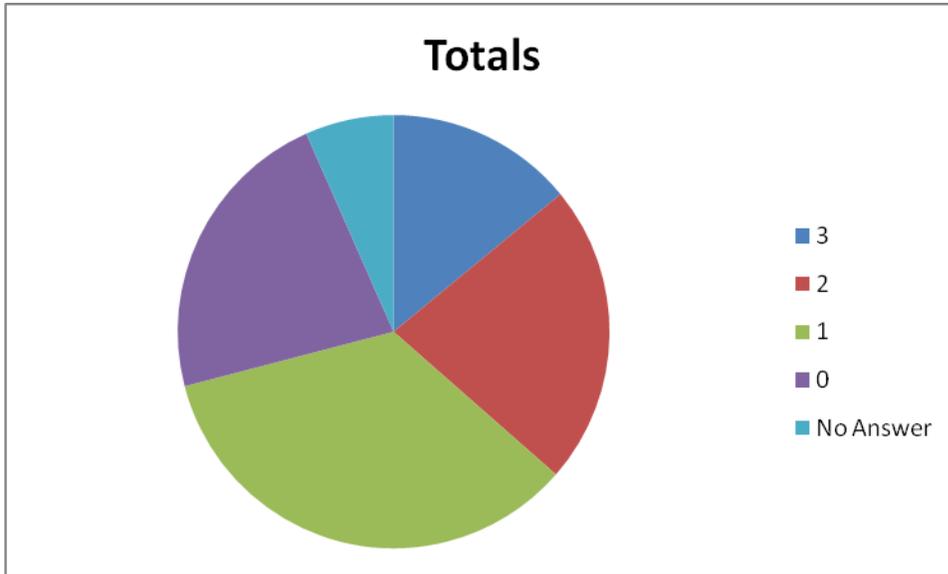


Figure two illustrates the number of times each score was awarded. It clearly shows that a numerical score of 1 was given to answers in the pre-service survey a majority of the time, which is designated by the green section.

Figure 2

Responses to Pre-Service Student Survey.



From this data, a conclusion can be drawn that prior to participation in the FAST program, participants reported low levels of academic achievement as measured by self-reported leadership, planning, goal setting, school relationships, and community involvement.

Participant Post-Service Learning Program Results

Of the 87 participants that completed the program, 58 completed and returned the survey for a 67% response rate. The participants were asked to rate their answer based on a 5-point Likert scale, ranging from 5 = strongly agree to 1 = strongly disagree, and 3 = no opinion. Table 2 provides the results by question.

Table 2

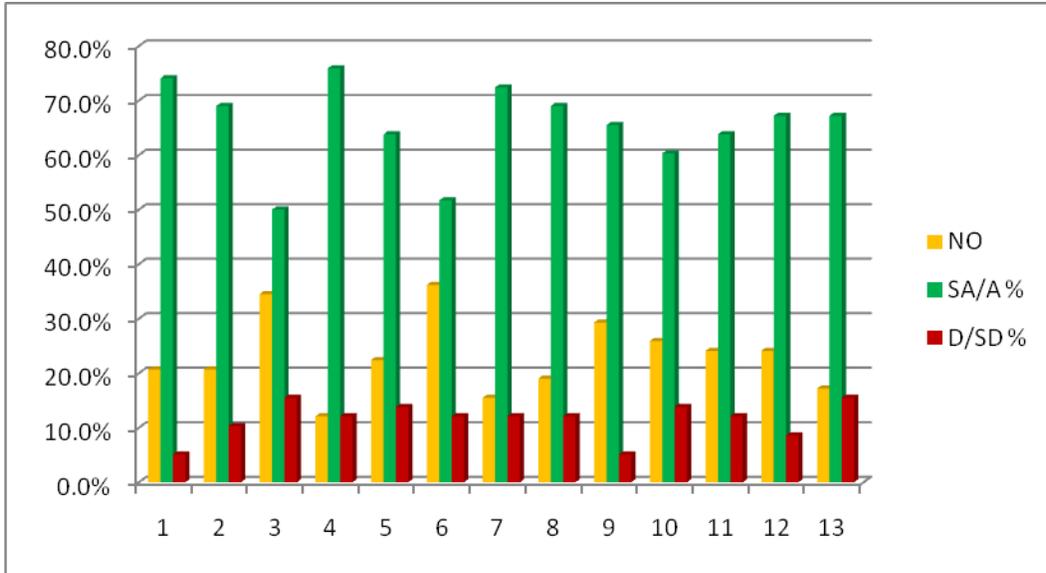
Percent of Responses by Question

Question	No Response (%)	Strongly Agree/Agree (%)	Disagree/Strongly Disagree (%)
1 - I learned at least 5 new jobs skills at FAST	20.7%	74.10%	5.10%
2 - I improved my ability to lead at group at FAST	20.70%	69%	10.30%
3 - I creased my public/community speaking ability at FAST	34.50%	50%	15.50%
4 - I was able to put into practice at least one skill I learned at school	12.10%	75.90%	12.10%
5- I am excited to share w/ my teachers the things I have learned at FAST	22.40%	63.80%	13.80%
6 -I have a better outlook on school than I did before FAST	36.20%	51.70%	12.10%
7- I now better understand how to create, set, and achieve academic goals	15.50%	72.40%	12.10%
8- I was able to reach at least 95% of the project goals I set for the summer	19%	69%	12.10%
9- I am now more prepared to set goals pertaining to jobs in the future	29.30%	65.50%	5.10%
10 - I am excited to tell my friends at school about my summer at camp	25.90%	60.30%	13.80%
11 - I plan to come back to camp next year	24.10%	63.80%	12.10%
12 - I feel that I will lead more community service projects in the future	24.10%	67.20%	8.60%
13 - I know how to plan, start, and complete my own service projects	17.20%	67.20%	15.50%

Figure three depicts the student survey results after completing the six week FAST Service-Learning program. This figure shows the majority of answers were rated as agree or strongly agree, depicted by the middle bar for each question numbered across the bottom.

Figure 3

Student Post-Service Learning Survey Data



This data clearly indicates that the summer activities positively impacted the participants in the areas of academic engagement of goal setting, planning, community involvement, school outlook, peer and teacher relationships, education linked to job skills, public speaking, and leadership. A majority of participants reported that they strongly agreed or agreed with all survey questions following the service learning project.

This data demonstrates the program's overall effectiveness in creating a positive link between service-learning projects and academics, life skills, and peer relationships. The questions related to different aspects of academic engagement, including leadership, peer and teacher relationships, opinion of school, and links to outside of the classroom, to which participants responded positively. This data indicates that the summer FAST Service-Learning program was effective in increasing the self-reported academic engagement of the participants.

Post-Service Learning Parent Survey

At the end of the program not only were the students in the program surveyed but their parents were also asked questions about whether or not the students in the program made academic gains over the summer. The parent survey included the following questions.

1. What did your child like best about the FAST program?
2. What do you think your child gained from being a part of the program?
3. What would you like to see changed about the program before next summer?
4. Did your child learn at least 5 new jobs skills this summer as a result of the program?
5. Is your child more prepared to address needs in their community, including talking to community members?
6. Did your child learn a new principle this summer that they can apply to the upcoming year's school work?
7. Is your child more about to set, reach/ complete goals as a result of this program?
8. Did your child make new friends this summer?
9. If your child was not in the program what would he/she be doing this summer?
10. How has your child's attitude about community service changes as a result of this program?
11. Do you think your child will continue to do service projects in your community after summer?
12. How do you think this program will affect your child's school performance in upcoming years?
13. Anything else you would like to share.....

The survey was voluntary and was available for parents to fill out and return at their convenience. Seven parents completed the survey, and although only a small number of the surveys were completed, they showed very positive results.

The first question of the parent survey resulted in three major outcomes. Three parents said that the aspect of the summer program their children liked the best was making new friends, four said it was the actual Service Learning, and one said working in a group. When asked what they thought their child gained from the summer program, one parent said responsibility, one reported life skills, two parents reported their children gained respect for their community, and four parents responded their children gained an ability to work better as a team.

When asked if their children gained new job skills from the summer Service Learning program, all seven parents responded positively. Question number five asked parents if their child is more prepared to address needs in their community, including talking to community members, to which all responded yes. All parents also responded positively in response to the question: did your child learn a new principle this summer that they can apply to the upcoming year's school work.

Only one parent responded negatively to the question that asked whether or not their child is more able to set, reach, and complete goals. A unanimous positive response was given in response to whether or not their child made new friends over the summer. Next, when asked what their child would be doing if he/she was not in the program, a majority of parents responded that their child would just be sitting at home.

All parents believed their child's attitude about community service changed as a result of the program, and believed their child would continue to do service in the future. Lastly,

when asked how the program would impact their child's school performance two parents reported their child would now encourage their peers to participate in service, one said their child was better at planning, one said they took more time working on projects to finish them correctly, one responded that their child would more respectful of teachers, and another responded that their child's overall performance would increase, while one parent chose not to answer the question.

The data gathered from parents indicated that not only did students report that they made gains in academic engagement, but the parents overwhelmingly agreed that their children were positively impacted both academically and socially by participation in the summer Service-Learning program.

Findings from this study confirm the hypothesis that a summer Service-Learning program can have positive effects on the academic engagement of at-risk students in Southeastern Appalachian Ohio. This type of program not only teaches students basic academic and life skills, but also teaches how to interact with each other and their community, which are key factors for academic engagement. By teaching through service, students can have fun and experience academics using a new method. This type of program can not only help increase students' educational outcomes but better prepare them for the future.

Discussion

The results of this study are linked to research done by both those studying academic engagement and Service-Learning methodology. It has been demonstrated in previous literature that academic engagement increases academic performance in school and on standardized tests. If students are engaged in their schools with peers and teachers, and are

comfortable in their learning environment, then they will outperform students who are not (Tinio, 2009). It has also been demonstrated by the Corporation for National and Community Service, that when teaching students using service-learning projects, they are more apt to be involved with extracurricular activities, attend school more regularly, and be more prepared to finish school and enter the workforce or post-secondary education (Soslau & Yost, 2007).

This study is unique as it the only one completed in Appalachian Ohio with a Summer Service-Learning program. This study demonstrates that even in a short amount of time, youth-led service-learning projects can have a significant educational impact on those who participate in them. School districts should consider this when deciding on short-term or summer school programs to invest in. This program showed results very quickly and for an at-risk population where no other programs seem to be working. Practically, this program could work both in schools and in summer programs. If teachers commit to teaching through Service Learning, students would not only be more connected to their school work, but also their peers, other teachers, and their community. This is vital to improving not only the educational success of these students but also their future in their communities.

Conclusions

In conclusion, this study provides evidence that a summer Service-Learning program for at-risk students in Southeastern Appalachian Ohio increased academic engagement by increasing student leadership, enhancing goal setting ability, increasing relatedness between participants, their peers and their teachers, and linking academics to a broader outside world through the use of an authentic teaching strategy.

Implications

This study was conducted in Southeast Ohio with a largely rural population but the summer Service Learning project could easily be generalized to a much larger population. Because the study could easily be replicated in any area that can accommodate the students, it is not limited to a rural population. This study could be replicated with any middle school population and could be expanded to include high school students. Because school districts are concerned with both cost and test scores, it should be widely considered as a summer program/opportunity for students. This program offers students the opportunity to work in an out-of-school environment to enhance academic engagement while offering students an enjoyable, authentic way to learn.

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