About Junior Achievement USA® (JA)

Junior Achievement is the world's largest organization dedicated to giving young people the knowledge and skills they need to own their economic success, plan for their future, and make smart academic and economic choices. JA programs are delivered by corporate and community volunteers, and provide relevant, hands-on experiences that give students from kindergarten through high school knowledge and skills in financial literacy, work readiness and entrepreneurship. Today, JA reaches 4.4 million students per year in 118 markets across the United States, with an additional 5.7 million students served by operations in 120 other countries worldwide. Visit www.ja.org for more information.
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Executive Summary

Junior Achievement USA (JA) is the world’s largest organization dedicated to giving young people the knowledge and skills they need to own their economic success, plan for their future, and make smart academic and economic choices. *JA Job Shadow™* is a high school program that targets the JA pillar of work readiness. Over the course of three sessions and a site visit, *JA Job Shadow™* introduces students to professions and industries to demonstrate the importance of work readiness skills in getting a job and developing a career. *JA Job Shadow™* encourages mentoring between young people and caring adults and equips students with tools and skills required by employers to get and keep a job in 21st century, high-demand career industries.

The aim of this summative assessment was to measure the impact of *JA Job Shadow™*. Conducted during spring 2014, this summative assessment measured the impact of *JA Job Shadow™* by identifying changes in student knowledge and attitudes, student satisfaction, and short-term student behavior as a result of their participation in the program. In addition, the assessment addressed volunteer and teacher satisfaction, perceived impact, ability of the program to address learning objectives, and relevance to students’ lives.

Post-program surveys were administered to teachers and volunteers. Pre-program and post-program assessments were administered to program students (students who participated in *JA Job Shadow™*) and to control student (students who did not participate in the program). The responses of program students were compared to control students to determine how impactful the program was. Teachers and volunteers also participated in one-on-one interviews to provide more in-depth feedback on program impact and stakeholder satisfaction.

Demographics and Implementation Characteristics

Most teachers participating in this assessment were female, had taught for ten or more years, and had participated in four to five previous JA programs.

Most program students who completed both a pre- and a post-program assessment were in 9th grade and had never participated in JA before; however, most control students who completed both a pre- and a post-program assessment were in 11th grade and had participated in JA before.

Teachers led the two class sessions prior to the site visit and a class session following the site visit. Additionally, teachers attended the site-visit to a local job site with students and volunteers helped conduct the actual site visit. The majority of teachers implemented the program in a non-JA in A Day format and utilized non-JA materials to supplement the program curriculum. The majority of teachers who used non-JA materials reported supplementing the program with online resources.

JA Program Effectiveness and Engagement

Teachers who participated in the program reported that they had a clear understanding of their program roles and responsibilities and reported that volunteers at the Job Shadow sites provided value to the program.

Across every measure of teacher attitudes about learning objectives, teachers reported that the program addressed its learning objectives. Teachers indicated that the *JA Job Shadow™* program was age-appropriate, reflected their state’s educational standards, and aligned with their regular course curriculum. Teachers also indicated that students were engaged during activities and discussions, and that students appeared interested in the curriculum.
Program Impact

Students who participated in *JA Job Shadow™* did not demonstrate larger gains in knowledge about the program's concepts when compared to the control group of students who did not participate in JA. A possible reason for this finding might be that many of the control students were older and had participated in JA in the past, while most program students had never participated in JA. Therefore, control students may have past knowledge from previous JA programs and other experiences that would have allowed them to answer the questions on pre- and post-program assessments correctly.

Most students maintained their knowledge through the program, particularly on questions about interview skills and technical skills. A relatively large percentage of students did not master the concepts of what to include on a resume, elevator pitch, and soft skills. The variability in student knowledge gain across the questions suggests that, for the most part, while students were exposed to new concepts during their participation in *Job Shadow™*, not all students increased their understanding of what these concepts mean. This may indicate that there needs to be more time spent on program concepts.

Students also demonstrated an increase in one of the attitudinal questions about their participation in *JA Job Shadow™*. Slightly more students indicated that they set goals for their future on the post-program assessment compared to the pre-program assessment.

Program Satisfaction

Teachers and students were all satisfied with their experience participating in JA. Teachers indicated that they would participate in JA again and stated that they enjoyed the program overall. Teachers also indicated that the program was well-organized and that it made a difference in their class. Students indicated that they would recommend the program to a friend. Additionally, students noted that JA would be important later in their lives and what they learned in JA will help them get a good job.

Recommendations

Teachers provided recommendations to improve the program. Teachers recommended restructuring *JA Job Shadow™* to take less class time and one teacher suggested allowing more time at jobs sites for students to get additional hands-on experience.
Introduction

The aim of this summative assessment was to measure the impact of one of Junior Achievement USA’s (JA) high school programs: JA Job Shadow™. This assessment took place during spring 2014 and measured impact by identifying changes in student knowledge and attitudes, student satisfaction, and short-term student behavior. In addition, teacher satisfaction, perceived impact, ability of the program to address learning objectives, and relevance were also assessed.

All JA high school programs are developed with a primary emphasis on work readiness, financial literacy, and entrepreneurship. Students learn fundamental business and economic concepts, explore career interests and opportunities, and develop work readiness skills. JA Job Shadow™ targets the JA pillar of work readiness. Over the course of three sessions, JA Job Shadow™ introduces students to professions and industries to demonstrate the importance of work readiness skills in getting a job and developing a career. JA Job Shadow™ encourages mentoring between young people and caring adults and equips students with tools and skills required by employers to get and keep a job in 21st century, high-demand career industries. The program consists of four segments: two in-class sessions presented prior to a site visit, the four- to five-hour site visit to a job site, and one in-class session after the visit. Exhibit 1 summarizes the core learning concepts addressed in each of the three sessions of JA Job Shadow™.

<table>
<thead>
<tr>
<th>Session</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1: Before the Job Hunt</td>
<td>Students are introduced to the JA Job Shadow program and the Seven Steps to Get Hired and Succeed. Through a close examination of specific skills and career clusters, they learn the key factors to investigate in career planning: skills, interest, work priorities, and job outlook.</td>
</tr>
<tr>
<td>Session 2: Perfect Match</td>
<td>Students review the Seven Steps to Get Hired and Succeed and analyze job-hunting skills. They then participate in mock interviews to prepare for the Job Shadow Challenge at the site visit.</td>
</tr>
<tr>
<td>Site Visit</td>
<td>The site visit introduces students to the workplace and to the career opportunities available to them. Although the product developed or service provided differs from business to business, many companies provide similar career opportunities.</td>
</tr>
<tr>
<td>Session 3: Next Steps</td>
<td>Students reflect on what they learned before and during the site visit, and they practice business communication by composing a thank-you note. They then create one of four career-preparation tools: a career assessment, an elevator pitch, a resume, or an infographic profile.</td>
</tr>
</tbody>
</table>

Summary of Methods

Three JA Areas participated in the JA Job Shadow™ summative assessment. In order to obtain feedback from participants, Harder+Company Community Research, the contractor selected to implement the summative assessment, administered surveys and protocols for participating teachers, and students (program and control) at participating JA Areas.

As seen in Exhibit 2, one post-program teacher online survey was administered immediately following the conclusion of the program to identify the program’s impact, relevance, and how well it addressed the learning objectives. Additionally, questions related to classroom characteristics, program implementation, and program recommendations were also included. A sample of teachers was interviewed via phone to obtain additional perceptions of program impact.
Both program and control students were administered two assessments: a pre-program assessment administered prior to program implementation, and a post-program assessment administered within 24-hours post program implementation. The time frame of when post-program assessments were administered to control students varied by teacher and JA Area; the time frame ranged from the following day after the pre-program assessments to three weeks. The pre- and post-program assessments contained the same set of demographic, knowledge, and attitudinal questions; the post-program assessment included additional attitudinal questions. In order to measure and compare knowledge and attitudinal change, pre- and post-program assessments were matched using a combination of students’ last name and date-of-birth. Some analyses only include program students’ post-program assessments. Focus groups with students to obtain additional feedback were initially intended but due to scheduling conflicts, were not feasible.
Exhibit 3 provides details of the number of participating teachers and students in each JA Area.

<table>
<thead>
<tr>
<th>JA Area</th>
<th>Teachers</th>
<th>Students</th>
<th>Control</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Survey</td>
<td>Interview</td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>JA of Kentuckiana</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>JA of Northern California</td>
<td>7</td>
<td>1</td>
<td>68</td>
<td>70</td>
</tr>
<tr>
<td>JA of Oklahoma</td>
<td>2</td>
<td>1</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>2</td>
<td>95</td>
<td>101</td>
</tr>
</tbody>
</table>

Surveys that were returned were tracked, and weekly status reports were sent to JA Area Staff to assist in monitoring response rates at each site. Weekly email reminders with links to the online surveys were also sent to teachers. Potential interview participants were contacted up to three times.

**Analyses and Effect Size**

Students’ pre- and post-program assessments were matched using their last names and dates-of-birth. Quantitative data were entered into a standard statistical program (Statistical Package for the Social Sciences: Verison19) and analyzed using standard statistical procedures. Totals for specific survey items may not equal the overall sample size if some respondents left that item blank. The n-size for each variable is presented in the data tables and charts. In most cases, descriptive analysis (i.e., response frequencies) is provided. Various statistical were conducted based on the specific research question being answered. Findings noted as “statistically significant” are based on a p-value less than or equal to 0.5 and indicate that the groups being compared were different from one another in a statistical sense, and that the difference is not by chance alone significant findings are noted with an (*). However, please note that tests of significance are sensitive to sample size; the larger the sample size the easier it is to show a “statistically significant difference”. When a significant difference is found, other metrics should be explored in tandem with the discovery, including the mean or median, standard deviation, and effect size (when calculated).

As noted above, to more effectively explore the impact of the program on student knowledge, analysis of effect size is included. The effect size is the magnitude, or size, of an effect. It is useful to include as it provides a “practical” or “meaningful” context to the statistical significance (i.e., something can be statistically significant, but not meaningfully different). The range for effect size is typically from -3.0 to 3.0. A general rule of thumb is that r=0.2 is considered a ‘small’ effect size, 0.5 represents a ‘medium’ effect size and 0.8 or greater is a ‘large’ effect size.
Qualitative data from open-ended survey responses and interviews were analyzed using content analysis, an approach which comprehensively examines participant commentary for trends and emerging themes. A software program (ATLAS.ti) was utilized for this process.

**Overview of Report Findings**

Findings are based on survey and interview responses. Findings are separated by stakeholder (teacher and student) and stratified into the following sections, as applicable:

- **Demographics of Participants**: Demographic findings highlight information about prior involvement and other key pieces of information (number of years teaching, gender, etc.) for all stakeholders.

- **Characteristics of JA Program Implementation**: Teachers were asked to provide a host of feedback related to program implementation. It is important to ascertain how the program was implemented, as this information contextualizes the observed level of impact the program had on student outcomes. Students were not asked any program implementation questions; therefore, they do not have findings associated with this section.

- **Perception of JA Program Components, Effectiveness, and Engagement**: Teachers provided feedback regarding their perception of their own preparation and role administering the program, how well learning objectives were effectively addressed during the program, the level of student engagement, and the quality of instructional materials. Additionally, teachers were asked to rate the alignment and appropriateness of the JA curriculum. Students were not asked any questions related to this section; therefore, they do not have any findings associated with this section.

- **Program Impact**: In order to meet the changing education needs of students, JA programs are revised on a regular cycle. Demonstrating program impact is critical to validate the importance and value of JA Job Shadow™ in its current iteration. Program impact was measured in a variety of ways including changes in students’ knowledge and attitudes, and teachers’ and volunteers’ perceptions of program impact.

- **Program Satisfaction**: Teachers and students provided feedback related to their level of satisfaction with JA Job Shadow™.
Teacher Findings

Without the support of teachers, JA program implementation would not be possible. Teachers also provide unique and critical feedback regarding the impact and alignment of the JA curriculum.

Teacher Demographics

Most teachers participating in this assessment had taught for ten or more years, previously participated in several JA programs, and were female.

![Exhibit 4. Teachers’ Previous Teaching Experience (n=11)](chart)

- 10+ years: 63.6%
- 6-9 years: 27.3%
- 3-5 years: 9.1%
- 1-2 years: 0.0%

![Exhibit 5. Teachers’ Previous JA Experience (n=10)](chart)

- 6+ Programs: 20.0%
- 4-5 Programs: 60.0%
- 2-3 Programs: 20.0%
- First JA Experience: 0.0%

![Exhibit 6. Teachers’ Gender (n=11)](chart)

- Female: 63.6%
- Male: 36.4%
Teacher Reported Characteristics of Program Implementation
Teachers lead the two sessions prior to the site visit, the session following the site visit and attended the site-visit with students, where volunteers helped conduct the actual site visit. The majority of teachers implemented the program in non JA in A Day formats. Several teachers used a variety of non-JA materials to supplement the program curriculum (45.5%; n=11) and some did so for several sessions (40.0%; n=5). The majority of teachers who utilized supplemental materials used online resources.

Exhibit 7. Teacher Reported Use of Non-JA Materials by Type (n=8)

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online resources</td>
<td>60.0%</td>
</tr>
<tr>
<td>Other (specify)**</td>
<td>40.0%</td>
</tr>
<tr>
<td>Video</td>
<td>20.0%</td>
</tr>
<tr>
<td>Magazines</td>
<td>20.0%</td>
</tr>
<tr>
<td>Newspapers</td>
<td>20.0%</td>
</tr>
<tr>
<td>Maps</td>
<td>0%</td>
</tr>
<tr>
<td>Advertisements</td>
<td>0%</td>
</tr>
</tbody>
</table>

** Other includes: company documents and presentations

Through telephone interviews, teachers were asked to provide feedback on the use of supplemental materials. One teacher showed students how to use Office products such as Word and PowerPoint in a job setting.
Teacher Perception of Program Components, Effectiveness, and Engagement
Most teachers agreed or strongly agreed that they understood their role as a teacher and indicated the JA volunteer provided value to the program. The majority of teachers also reported that the learning objectives were moderately or thoroughly addressed and agreed or strongly agreed that the curriculum was age-appropriate, reflected that State’s educational standards, and aligned with their regular course curriculum. Additionally, most teachers agreed or strongly agreed that students appeared to understand the concepts presented, were engaged during discussions and activities, and were interested in the curriculum. The majority thought the materials provided by JA were above average or excellent.

Exhibit 8. Teacher Reported Level of Agreement Regarding Understanding Their Role and Value of JA Volunteer

Exhibit 9. Teacher Reported Rating of Overall Effectiveness of JA Volunteer (n=11)

Through a telephone interview, one teacher provided positive feedback on the effectiveness of the volunteers, stating, “JA people have been prepared, super presentation, something my students can really learn.”
Students will recognize career clusters that match their skills and interests. (n=11)

Students will demonstrate self-awareness of their soft skills in work scenarios. (n=11)

Students will review methods of identifying job openings. (n=11)

Students will demonstrate professional interviewing skills. (n=11)

Students will express expectations for the upcoming site visit. (n=11)

Students will evaluate personal priorities based on their site visit experience. (n=11)

Students will showcase identified skills. (n=11)

Students will apply program knowledge to at least one of four career-preparation tools. (n=11)
The JA materials aligned well with my regular course curriculum. (n=10)

- Strongly Disagree: 10.0%
- Disagree: 10.0%
- Neither Agree/Nor Disagree: 30.0%
- Agree: 50.0%

The JA curriculum reflects the state’s educational standards. (n=10)

- Strongly Disagree: 20.0%
- Disagree: 30.0%
- Neither Agree/Nor Disagree: 50.0%

The JA curriculum is age-appropriate. (n=10)

- Strongly Disagree: 10.0%
- Disagree: 10.0%
- Neither Agree/Nor Disagree: 30.0%
- Agree: 50.0%

Student appeared to understand the concepts presented. (n=11)

- Strongly Disagree: 18.2%
- Disagree: 81.8%

Students were engaged during the activities. (n=11)

- Strongly Disagree: 45.5%
- Disagree: 54.5%

Students were engaged during discussion. (n=11)

- Strongly Disagree: 54.5%
- Disagree: 45.5%

Students appeared interested in the curriculum. (n=11)

- Strongly Disagree: 36.4%
- Disagree: 63.6%

Teacher Reported Level of Agreement Regarding JA Curriculum

Teacher Reported Level of Agreement Regarding Student Engagement

Teacher Reported Rating of Instructional Materials Provided by JA (n=11)
Teacher Perceived Program Impact

All teachers reported that they believed JA Job Shadow™ has a positive impact on students (n=11). Most teachers agreed or strongly agreed that the JA curriculum connects what students learn in the classroom with the outside world and their future, reinforces the value of an education, helps prepare students to be successful in the future, encourages students’ creativity, exposes students to new career possibilities, and prepares students to make good decisions about money. Those teachers that indicated that the program had a positive impact provided the following rationale: it opens their eyes to outside of the classroom and helps them know what to expect, it introduces them to helpful information, and “provides access to skills, workplace environments and opportunities that many students would not have without JA.”

In addition to providing their level of agreement to statements regarding skills students developed or improved due to JA participation, teachers were asked to identify three skills they reported that students most improved due to their participation in JA. The top four responses were:

1. Interpersonal Communication (60.0%);
2. Decision Making (60.0%);
3. Critical Thinking (50.0%); and
4. Teamwork (40.0%).

When characterizing the impact of the program on students, the two teachers who participated in phone interviews reported that students learned a lot from JA Job Shadow™ and it opened their eyes to potential career paths, the skills needed in a work environment, how to write a resume, how to dress and act in a job setting, and the importance of soft skills. One teacher stated that JA helps students, “Realize they can do something, if they have a dream, they can do it.” Both indicated that participating in JA definitely sparked students’ interest and can help students in the future. One teacher mentioned that she noticed that students, “Were doing better on their projects, knowing those are real projects that will help them” and reported that she saw a positive difference in the way her students acted when they were out at the Job Shadow site versus working in the classroom. Additionally, one teacher indicated that students had some difficulty grasping the concept of career clusters and did not necessarily understand why certain careers were in the same cluster.
Exhibit 14. Teacher Reported Level of Agreement Regarding Skills Students Developed or Improved by Participating in JA

- **Entrepreneurial (n=11)**
  - Strongly Disagree: 36.4%
  - Disagree: 18.2%
  - Neither Agree/Nor Disagree: 27.3%
  - Agree: 45.5%
  - Strongly Agree: 18.2%

- **Leadership (n=11)**
  - Strongly Disagree: 36.4%
  - Disagree: 45.5%
  - Neither Agree/Nor Disagree: 18.2%

- **Financial Literacy (n=11)**
  - Strongly Disagree: 45.5%
  - Disagree: 27.3%
  - Neither Agree/Nor Disagree: 27.3%

- **Interpersonal Communication (n=11)**
  - Strongly Disagree: 18.2%
  - Disagree: 45.5%
  - Neither Agree/Nor Disagree: 36.4%

- **Critical Thinking (n=10)**
  - Strongly Disagree: 40.0%
  - Disagree: 20.0%
  - Neither Agree/Nor Disagree: 40.0%

- **Problem-Solving (n=11)**
  - Strongly Disagree: 27.3%
  - Disagree: 45.5%
  - Neither Agree/Nor Disagree: 27.3%

- **Decision-Making (n=11)**
  - Strongly Disagree: 18.2%
  - Disagree: 54.5%
  - Neither Agree/Nor Disagree: 27.3%

- **Teamwork (n=11)**
  - Strongly Disagree: 27.3%
  - Disagree: 54.5%
  - Neither Agree/Nor Disagree: 18.2%

Legend:
- Red: Strongly Disagree
- Orange: Disagree
- Yellow: Neither Agree/Nor Disagree
- Green: Agree
- Green with white: Strongly Agree
Through interviews, two teachers also provided feedback on the relevance of the JA curriculum to the students’ lives and futures. Overall, both believed that students were able to connect what they were doing in classroom to the real world. One teacher stated, “They are able to make that connection that math, critical thinking and problem solving are important because that’s what they are looking for in the real world when they are looking for a job.” In addition, one teacher indicated that students were able to come back to the classroom and make a connection with the skills they learned in JA about communicating and collaborating with their classmates. JA also helped students begin to think about next steps and sparked their interest in thinking about career options.

**Teacher Satisfaction**

When asked if they would participate in JA again, all teachers (100%) indicated they would (n=11). Through telephone interviews, two teachers were asked to provide feedback on their experience with JA. Both teachers who participated in phone interviews were satisfied with the program stating that they enjoyed the program, it was well organized, and it made a difference in their class. One teacher said that her only concern was giving students more hands-on experience at the job shadow.
Student Findings

Feedback from students, including answers to knowledge questions was explored to determine the overall impact of JA Job Shadow™ on student knowledge, attitudes, and behaviors.

Student Demographics

Most program students who completed a post-program assessment were in 9th grade and had never participated in JA before. Most program students who completed both a pre- and a post-program assessment were in 9th grade and had never participated in JA before; however, most control students who completed both a pre- and a post-program assessment were in 11th grade and had participated in JA before.

<table>
<thead>
<tr>
<th>Grade (n)</th>
<th>Program</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Post Only</td>
<td>Pre &amp; Post</td>
</tr>
<tr>
<td>9th</td>
<td>101</td>
<td>92</td>
</tr>
<tr>
<td>10th</td>
<td>28.7%</td>
<td>30.4%</td>
</tr>
<tr>
<td>11th</td>
<td>30.7%</td>
<td>30.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Previous JA Experience (n)</th>
<th>Program</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Previous Experience</td>
<td>71.3%</td>
<td>77.2%</td>
</tr>
<tr>
<td>Previous Experience</td>
<td>28.7%</td>
<td>22.8%</td>
</tr>
</tbody>
</table>

Program Impact on Students

Assessments results for students are a key element of this summative assessment as pre-program and post-program assessment data, along with comparison data, provide evidence of student learning and attitudinal/behavioral changes due to involvement in JA.
### Student Knowledge Change

Students were asked nine knowledge questions on the pre- and post-assessments. A knowledge score for the pre- and post-program assessment was derived by adding the number of total correct responses. The majority of students answered most questions correctly on both the pre-program and post-program assessment. Exhibit 17 displays the average pre- and post-program assessment score for both program and control students. The average change score (post-program assessment knowledge score minus pre-program assessment knowledge score) of the program group (mean=.5; SD=1.5) and the control group (mean=.2; SD=1.3) was not statistically different (p>.05); the program group did not show a higher increase in knowledge gain. The associated effect size (r=.11) was small. Additional detail on whether students answered each question correctly or incorrectly on the both the pre-program assessment and the post-program assessment can be found in the Technical Appendix.

Exhibit 17. JS Average Knowledge Pre-Score and Post-Score for Program and Control Students

To fully understand the impact of a program, it is often helpful to explore whether some variables can predict a specific outcome. One way to test this notion is to conduct a statistical process called “multiple regression,” which measures which variables influence the accurate prediction of another variable, such as an outcome variable. In this assessment, two variables, participation in the current JA program (program or control group) and prior experience with JA, were analyzed to see how much they can predict the amount of change in knowledge scores. The result of that analysis indicated that participating in JA did not predict a higher change score. Additional detail regarding this analysis can be found in the Technical Appendix.
To determine if certain factors contribute to the knowledge gain observed in program students, chi-square analyses to measure the association between various factors and knowledge change were performed. The association between program delivery format and change in knowledge score was statistically significant (p<.05). A higher percentage of students who participated in non-JA in a Day made knowledge gains compared to students who participated in JA in a Day format.

**Exhibit 18. Relationship between Teacher Reported Program Delivery Format and Change in Student Knowledge**

<table>
<thead>
<tr>
<th></th>
<th>No Knowledge Gain</th>
<th>Knowledge Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>JA- n a Day (n=76)</td>
<td>67.1%</td>
<td>32.9%</td>
</tr>
<tr>
<td>Non-JA in a Day (n=15)</td>
<td>13.3%</td>
<td>86.7%</td>
</tr>
</tbody>
</table>

The association between teacher reported volunteer effectiveness (very ineffective and somewhat ineffective vs. somewhat effective and very effective) and change in student knowledge was not statistically significant (p>.05); the percentage of students was similar across groups.

**Exhibit 19. Relationship between Teacher Reported Volunteer Effectiveness and Change in Student Knowledge**

<table>
<thead>
<tr>
<th></th>
<th>No Knowledge Gain</th>
<th>Knowledge Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Effective (n=76)</td>
<td>56.6%</td>
<td>43.4%</td>
</tr>
<tr>
<td>Very Ineffective (n=15)</td>
<td>66.7%</td>
<td>33.3%</td>
</tr>
</tbody>
</table>
The association between teacher reported use of non-JA materials to supplement the curriculum (no reported use of materials vs. reported use of one or more materials) and change in student knowledge was not statistically significant (p > .05); the percentage of students was similar across groups.

Students also provided qualitative feedback on paper assessments on what two things they learned from participating in the program. The top four themes that emerged from student responses included:

- The importance of soft skills;
- Different job opportunities;
- Interview skills; and
- The importance of school.
Program Impact on Student Attitudes

Program students provided their responses to six attitudinal statements on the pre-program and post-program assessment, as seen in Exhibit 21. A statistical procedure to measure changes in attitude was used to compare students’ responses on the pre-program and post-program assessment was conducted. Program students demonstrated improved attitude on the post-program assessment compared to the pre-program assessment for the following statement:

- I have set goals for my future.

Additional detail regarding this analysis can be found in the Technical Appendix.

### Exhibit 21. Student Reported Pre- and Post-Participation Levels of Agreement Regarding Attitudes**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have set goals for my future. (n=91)</td>
<td>8.8%</td>
<td>47.3%</td>
</tr>
<tr>
<td></td>
<td>47.3%</td>
<td>47.3%</td>
</tr>
<tr>
<td></td>
<td>26.4%</td>
<td>24.2%</td>
</tr>
<tr>
<td></td>
<td>15.4%</td>
<td>30.8%</td>
</tr>
<tr>
<td>I feel in control over how my future will turn out. (n=91)</td>
<td>11.4%</td>
<td>33.0%</td>
</tr>
<tr>
<td></td>
<td>52.3%</td>
<td>43.2%</td>
</tr>
<tr>
<td></td>
<td>12.5%</td>
<td>42.0%</td>
</tr>
<tr>
<td>I feel good about myself. (n=88)</td>
<td>5.6%</td>
<td>57.3%</td>
</tr>
<tr>
<td></td>
<td>36.0%</td>
<td>27.0%</td>
</tr>
<tr>
<td></td>
<td>14.3%</td>
<td>82.4%</td>
</tr>
<tr>
<td>I expect to graduate from high school. (n=91)</td>
<td>12.1%</td>
<td>85.7%</td>
</tr>
<tr>
<td></td>
<td>21.1%</td>
<td>72.2%</td>
</tr>
<tr>
<td>I expect to go to college. (n=90)</td>
<td>23.3%</td>
<td>72.2%</td>
</tr>
</tbody>
</table>

**All percentages less than 5.0% are not displayed**
On the post-program assessment only, program students were asked to rate their level of agreement to a series of attitudinal statements. When provided statements connected to school, a high percentage of program students reported that JA connected what they learned in the classroom with real life and JA made them realize the importance of staying in school.

**Exhibit 22. Student Reported Post-Participation Levels of Agreement of Attitudes related to School**

- JA made school more interesting to me. (n=99)
  - Strongly Disagree: 9.1%
  - Disagree: 29.3%
  - Neither Agree/ Nor Disagree: 38.4%
  - Agree: 22.2%

- The things I learn in JA will help me do better in school. (n=101)
  - Strongly Disagree: 6.9%
  - Disagree: 29.7%
  - Neither Agree/ Nor Disagree: 45.5%
  - Agree: 16.8%

- I look forward to going to school more on the days JA takes place. (n=101)
  - Strongly Disagree: 28.7%
  - Disagree: 41.6%
  - Neither Agree/ Nor Disagree: 24.8%

- My involvement in JA has helped me stay out of trouble in-school. (n=101)
  - Strongly Disagree: 7.9%
  - Disagree: 41.6%
  - Neither Agree/ Nor Disagree: 33.7%
  - Agree: 13.9%

- JA connected what I learned in the classroom with real life. (n=101)
  - Strongly Disagree: 17.8%
  - Disagree: 54.5%
  - Neither Agree/ Nor Disagree: 23.8%

- JA made me realize the importance of staying in school. (n=101)
  - Strongly Disagree: 12.9%
  - Disagree: 47.5%
  - Neither Agree/ Nor Disagree: 35.6%

**All percentages less than 5.0% are not displayed**
Program students also provided feedback on statements regarding current and future issues. The majority of students believed that the things they learned in JA will be important later in life, help them get a good job, and help them be successful in life (Exhibit 23).

**Exhibit 23. Student Reported Post-Participation Levels of Agreement of Attitudes related to outside of School**

- **The things I learned in JA will be important later in life.**
  - Strongly Disagree: 8.0%
  - Disagree: 67.0%
  - Neither Agree/ Nor Disagree: 24.0%

- **The things I learned in JA will help me get a good job.**
  - Strongly Disagree: 8.9%
  - Disagree: 56.4%
  - Neither Agree/ Nor Disagree: 33.7%

- **The things I learned in JA will help me be successful in life.**
  - Strongly Disagree: 15.8%
  - Disagree: 59.4%
  - Neither Agree/ Nor Disagree: 23.8%

- **My JA volunteer makes me feel important.**
  - Strongly Disagree: 27.3%
  - Disagree: 44.4%
  - Neither Agree/ Nor Disagree: 27.3%

- **My involvement in JA has helped me stay out of trouble out-of-school.**
  - Strongly Disagree: 7.0%
  - Disagree: 44.0%
  - Neither Agree/ Nor Disagree: 33.0%
  - Agree: 13.0%

- **JA taught me how to manage my money.**
  - Strongly Disagree: 19.0%
  - Disagree: 35.0%
  - Neither Agree/ Nor Disagree: 31.0%
  - Agree: 11.0%

**Student Satisfaction**

Program students were asked if they would recommend this program to a friend. Nearly all (94.6%) indicated they would recommend this program to a friend, indicating that most students were satisfied with the program (n=101).
Stakeholder Recommendations

Teachers provided additional feedback as to how JA Job Shadow™ could be further improved. Overall, teachers suggested slight changes to the program curriculum. Recommendations from teachers through online surveys included:

- Two teachers recommended reconsidering the structure of JA Job Shadow™ because it is hard to have students miss so much class time;
- One teacher suggested allowing more time at the job site for students to see behind the scenes;
- One teacher suggested including less paperwork because it is difficult to arrange the field trip and do all of the pre- and post-program assessments;
- One teacher suggested recruiting volunteers who mirror the students that the volunteers will interact with. The teacher stated, “Many students of color need to see people of color in higher positions within companies to know that they too could hold that position.”

Through telephone interviews, two teachers provided additional suggestions on how to improve the JA curriculum. Suggestions included making sure job shadow opportunities have hands-on experiences for the students because those experiences are most beneficial to them.

Additional comments or suggestions from teachers included:

- “This survey seems more generalized towards all programs, not specific to the job shadow we participated in. Thank you again for the opportunity. JA is such a great asset for our classroom;”
- “I have been working with [a volunteer] for over five years. She is always on time, on task and ultimately delivering quality instruction to prepare students prior to every session. She is a great asset to JA” and
- “I was a little confused if this survey was focusing on the lessons taught before the site visit or the lessons plus the site visit. I did my best to answer as if it was addressing both. One thing I did feel was that our students receive a lot of job training before hand, so some of the materials in the pre-lessons they already were well aware of.”
Conclusions

The purpose of this summative assessment was to measure the impact of one of Junior Achievement USA’s (JA) high school programs: JA Job Shadow™. Students were administered pre- and post-program assessments to identify and measure changes in student knowledge and attitudes, student satisfaction, and short-term student behavior. In addition, teacher satisfaction, perceived impact, ability of the program to address learning objectives, and relevance were also assessed through online surveys which were administered after the teacher had participated in JA.

Most classes that participated in JA Job Shadow™ had a teacher that had previous JA experience and was comprised of students in the 9th grade. Program implementation varied by regions and teachers supported the volunteer by helping with student activities. Many teachers also indicated that they co-led the program with volunteers.

Teachers reported a high level of satisfaction with the program and thought that it helped students connect to the outside world. Teachers indicated that the curriculum was age-appropriate and that students were engaged, had a better understanding of many of the concepts, and developed specific skills (decision making, interpersonal communication, critical thinking, and teamwork) after participating in JA. Teachers also agreed or strongly agreed that the curriculum exposes students to new career possibilities, helps prepare students to be successful in the future and reinforces the value of an education. Teachers also reported that volunteers were effective in implementing the JA program. Teacher recommendations for program improvement included having more hands-on activities for students, reconsidering the structure of Job Shadow so students don’t miss as much class time, and ensuring volunteers at site visits are representative of students participating.

The difference between the program and control students’ knowledge change was not statistically significant and participating in the program did not predict a higher knowledge change score. One reason for this might be that many of the control students had participated in JA in the past, while most program students had never participated in JA. Therefore, control students may have past knowledge from previous JA experiences that would have allowed them to answer the questions on pre- and post-program assessments correctly. Students’ knowledge change varied by specific question. For three questions, there were a large percentage of students who did not show any knowledge gain from pre- to post-program assessments. Those questions were:

- A well designed resume should include which of the following [career history],
- A(n) [elevator pitch] is a technique used to summarize information and to promote a product, company or a person, and
- Personal abilities not directly tied to a specific job are also needed in most jobs. These are called [soft skills].

Therefore, students may have had trouble understanding these concepts specifically or the question may have been worded in a way that was confusing to students. Since there were such large percentages of students not showing improvement on these questions, it might have impacted the predicted knowledge gain for program students compared to control students. JA may want to reconsider the way these topics are covered.

In addition, students who participated in JA once per week had a higher knowledge change score versus students who participated in JA in a Day. This might be because there was a lot of information covered during the sessions, including site visits. Therefore, students who participated in JA over several days or weeks may
have had more of an opportunity to reflect on and absorb the information, therefore showing a higher gain in knowledge compared to those who participated in one day.

The age of students might also have impacted their responses to the program assessments. Program students were relatively equally distributed between 9th-11th grade while most control students were in 11th grade. Having older students with more experience (and many with JA experience), might have given control students an advantage compared to program students. Therefore, there was not the expected increase in knowledge change score for program students. With more older students in the control group, there is the possibility that they may have learned some of the concepts in their classes outside of JA or have outside work experience, whereas the program students may not have been introduced to those concepts and therefore have less base knowledge.

Students were asked attitudinal questions on pre- and post-program assessments to determine the overall impact of JA on student attitudes regarding their success in school and the future. Participation in JA led to an attitudinal change for one question, “I have set goals for my future”, where slightly more students strongly agreed or agreed to this attitudinal question on post-program assessments compared to pre-program assessments. Although there was a statistically significant change from pre- to post-program assessments for this attitudinal factor, the effect sizes of those changes was minimal. This means that although changes in attitude might be statistically significant, it is not a meaningful change. In addition, there was no significant difference in the other five attitudinal questions from pre-to post-program assessment, indicating that although teachers indicated the program had a positive impact on students, its impact was not validated through the program assessments.

Nearly all teachers reported that JA had a positive impact on students. It should be noted that nearly all teachers had prior JA experience. Overall, JA Job Shadow™ seems to have an impact on students based on teacher feedback and some small shifts in student attitudes. However, data did not seem to support this fully. Therefore, it might be important to look at some ways to improve delivery of specific concepts. In addition, the small sample size may have impacted this assessment from detecting changes in student knowledge.
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