

# *Junior Achievement Titan Program Evaluation*

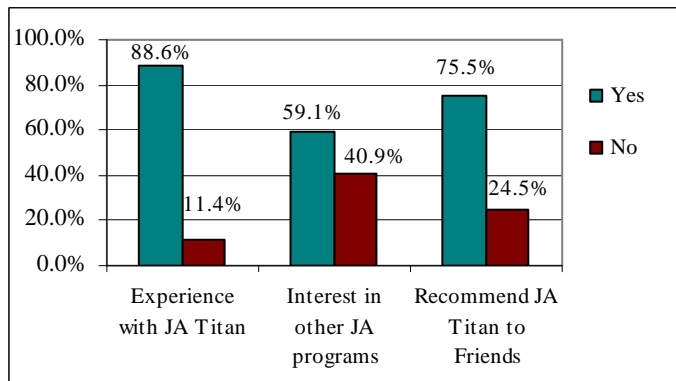
## **Executive Summary 2007**

The *JA Titan* program evaluation was conducted by Lodestar from August 2007 through December 2007. The evaluation was designed to assess the extent to which the program attained desired outcomes in student knowledge, attitudes, behaviors and skills, and to obtain the reactions of diverse stakeholders (i.e., teachers, volunteers, member site staff, and students) regarding the implementation and quality of the various program elements, as well as to identify specific strategies and practices for program improvement. The evaluation methodology comprised a variety of data collection activities including a literature review, interviews, student focus groups, *JA Titan* classroom observations, online surveys, and a student pre- and post-assessment for *JA Titan* and non-*JA Titan* comparison students. The following section contains the key findings from the evaluation:

### **Key Findings**

**Overall program satisfaction was high among teachers, volunteers, and students.** In an online survey, the majority of teachers and volunteers indicated being satisfied with their *JA Titan* program experience and that they would recommend the program to others. Interviews with teachers and volunteers also indicated a high level of satisfaction with the program. In the student post-assessment, the majority of *JA Titan* students also indicated satisfaction with their overall experience in the program and that they would recommend the program to friends, and focus groups with students revealed a similar level of satisfaction.

**Figure 1. Student Satisfaction with the *JA Titan* Program**



**In student pre- and post-assessments, *JA Titan* students from some *JA* member sites showed significant improvement and higher scores on average than non-*JA Titan* students.**

Across member sites, there were no significant differences on average between the post-assessment scores of *JA Titan* and non-*JA Titan* students, but the scores of *JA Titan* students from the Orlando, La Crosse, and Cleveland member sites showed significant improvement from pre- to post-assessment and were significantly higher on average than those of non-*JA Titan* students at post-assessment.

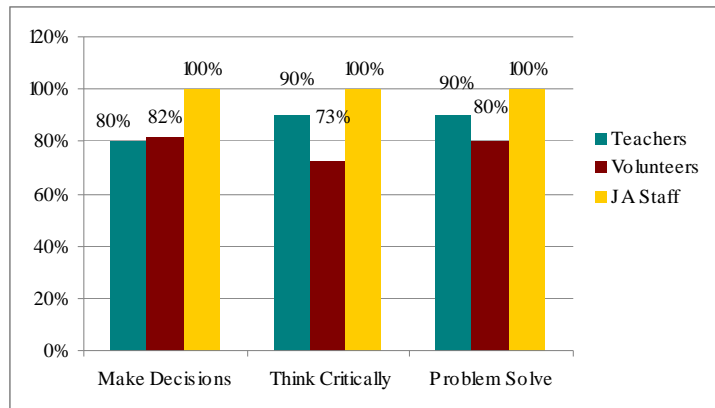
**Figure 2. *JA Titan* Student Assessment Scores**

| <i>JA Titan</i> Site | Pre-test | Post-Test |
|----------------------|----------|-----------|
| Cleveland, OH        | 63.64    | 69.53*    |
| Grand Rapids, MI     | 67.27    | 74.18     |
| Houston, TX          | 60.98    | 54.85*    |
| La Crosse, WI        | 74.38    | 81.82*    |
| Norfolk, VA          | 65.41    | 69.84     |
| Orlando, FL          | 62.16    | 73.57*    |

\* indicates results significant at (p< .05)

**JA staff, teachers, volunteers, and students perceived that the JA Titan program enhances students’ workforce-readiness skills (i.e., decision-making, critical thinking, and problem solving).** In an online survey, large majorities of teachers, volunteers and staff perceived that the program improves students’ ability to make decisions, think critically, and problem solve. Students reported that because the JA Titan simulation is played by teams, the program facilitates team decision making and negotiation rather than students making decisions on their own. In interviews, teachers reported that the decision-making process of the program is enhanced by the timely outcomes students experience as a result of their decisions and that the program encourages students to think of their decisions in terms of “cost and benefit,” adjusting their strategies according to the decisions made by other student teams. Teachers also noted that the decision-making aspect of the program allows students to *experience* the economic theories they learn in class by putting them into practice in the simulation.

**Figure 3. JA Titan Impact on Core Workforce Skills**



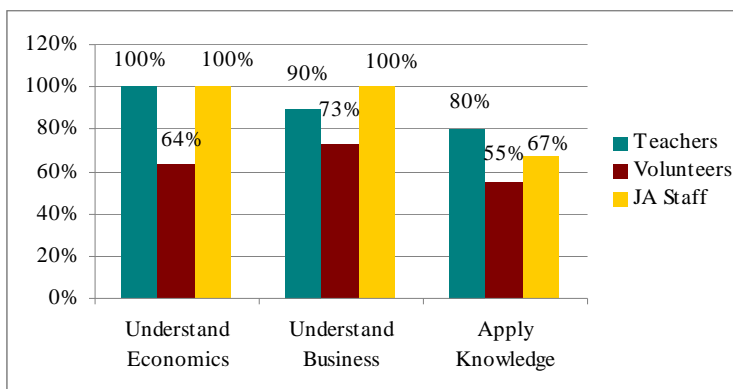
**Teachers, volunteers, and students perceived that the JA Titan program cultivates and enhances communication and teamwork.** In an online survey, a majority of teachers, volunteers, and JA staff perceived that the simulation increases students’ ability to work well on a team. In interviews, teachers often emphasized that because the simulation has a particular focus on team-based analysis and decisions, interpersonal relations are important for success. Student focus groups also revealed the perception that the simulation requires and encourages teamwork among participants and enhances teamwork skills. During classroom observations, teams often were observed discussing economics concepts and the strategies they and their teammates were utilizing. Students also helped one another navigate the simulation menus and interpret results, and there appeared to be coordinated decision-making throughout.

*“[Working in groups] helps a lot because you might think about something that some people might not think of and we can bounce the ideas off of each other.”*  
 —Student Participant

**JA staff, teachers, and volunteers perceived that the JA Titan program improves students’ ability to understand important economics and business concepts and apply them to the real world.** In an online survey, the majority of teachers, volunteers, and JA staff perceived that the program improves students’ ability to understand core economics and business concepts and apply their knowledge to real world scenarios. In interviews with teachers, classroom observations, and focus groups with students it was revealed that conceptual knowledge and application are enhanced because the simulation allows students to explore core concepts through the manipulation of elements, such as units produced, price, capital investment spending, research and development, and charitable giving and experience immediate consequences.

**Figure 4. JA Titan Impact on Concept Learning and Application**

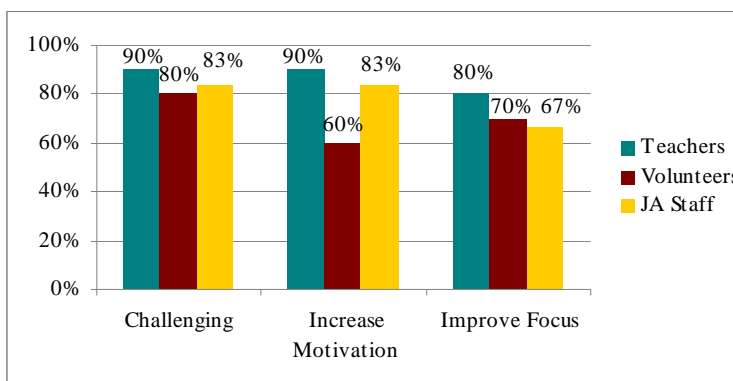
However, in interviews, teachers and volunteers were quick to note that the simulation is only a tool and that it is up to the teacher and volunteer to constantly reinforce the connection between knowledge and application. Findings from the student post-assessment support this; based on student responses, in terms of understanding core economics concepts, group activities, followed by instructors, and then the simulation were considered most important.



**Teachers and volunteers perceived that the simulation generally engages students in the learning process.** Interviews with teachers and volunteers revealed perceptions that the increase in student engagement is one of the most important impacts of the *JA Titan* simulation. In an online survey a majority of teachers, volunteers, and JA Staff

**Figure 5. JA Titan Impact on Student Engagement**

perceived that the simulation is challenging for students, increases motivation, and increases focus, all key elements in engagement. In focus groups, some students affirmed that the simulation has had a definite impact on their desire to attend economics class and motivation to learn. It is important to note that although the simulation elicited a high level of engagement from most student participants, in classroom observations the teacher and volunteer had to make concerted efforts to ensure that all students remain focused on the task at hand. The best examples of student engagement that were witnessed in classroom observations were those in which the *JA Titan* teams were small (two to three members) and both the teacher and volunteer circulated around the room coaching individual teams. It was also an effective practice to pause the simulations after a set period of time had elapsed to debrief with the entire class and review each team’s results before resuming the simulation.



**Teachers, volunteers, JA staff, and students perceived JA Titan’s competitive element to be critical to student engagement.** In interviews, teachers, volunteers, and JA staff overwhelmingly perceived that the gaming and competition elements of the simulation were the primary attractions for students and what engaged them most in the program. In focus groups, students expressed that the *JA Titan* program was competitive and fun and that it revealed

alternative means of learning besides lectures and textbooks. In classroom observations, the level of enjoyment that students gained from competing against each other was visible in their discussions with teammates and, in some instances, playful taunting of each other. The real-time element to the simulation seemed to add a sense of excitement for some students, while others appeared more focused and carefully monitored the results. Students and teachers reported that the ability of students to create, name, and lead their own companies (teams) provides an authentic stake in the simulation and the outcome.

**Teachers, JA Staff, and students perceived that *JA Titan* generally increases students' interest in business and economics and plans to pursue a business career.** In an online survey, a majority of teachers, volunteers, and JA staff perceived that the *JA Titan* program increases students' interest in business, and a majority of teachers and JA staff perceived that the program increases student interest in economics. Volunteers did not indicate a strong perception that the program increases students interest in economics, but this may be due to the micro-economics focus of the program, rather than macro-economics in general. In interviews, teachers, volunteers, JA staff, and particularly students in focus groups expressed that the *JA Titan* program increased some students' interest in business. Overall, students indicated that by participating in the simulation, they were more attuned to real-world business concepts and strategies (for example, the importance of correctly allocating limited resources based on changing market conditions). Teachers, volunteers, and some students perceived that *JA Titan* program experience helps some students decide about whether or not to pursue a business or economics-oriented career.

*"I actually now realize that there is more to getting a business degree; for example, I know of various jobs I could get, such as working for the government."*

—Student Participant

### Recommendations

**Provide examples of *JA Titan* classroom implementation practices for teachers and volunteers.** In interviews, some volunteers indicated that the training they received for classroom implementation was insufficient. For example, in some cases, volunteers only received packets with a copy of the *JA Titan* CD. Additionally, in an online survey, 71% of JA staff participants indicated that it was difficult to recruit qualified volunteers for the *JA Titan* program. One respondent reported that some potential volunteers are deterred from participating in the program because they are not confident that the utilization of the computer is an effective way to interact with students. Thus, the development of some form of visual presentation of effective *JA Titan* classroom implementation could help market the program to potential volunteers, as well as assist current volunteers in enhancing their teaching styles.

**Provide some navigation and content instructions for the *JA Titan* CD with the classroom materials.** In interviews, some volunteers expressed that it was initially difficult to learn how to navigate the simulation and that they did not know what information was actually available on the CD (i.e., company reports and market data). In an online survey, a staff participant also noted that one of the greatest challenges to recruiting volunteers is that the computer requirements and overall complexity of the simulation can be overwhelming to some potential volunteers. Additionally, 42.9% of JA staff indicated that it is difficult to train volunteers for the *JA Titan* program. Participants reported that among the greatest challenges to training volunteers

was the time required to get volunteers started with the program's computer component. One participant noted that hesitancy with the complexity of the website is the most challenging aspect of training. Thus, the provision of a brief content and navigation guide along with the CD could alleviate the overall time required by volunteers to familiarize themselves with the program, as well as the initial fears of those volunteers that might feel overwhelmed.

**Revise the presentation of the JA Titan Guide to Teachers and Volunteers.** In interviews with teachers and volunteers the majority sentiment was that the seven sessions of the *JA Titan* program take too long to implement given the time constraints posed by regular coursework and material. Some teachers perceived that the curriculum content had too much information for students to absorb in seven sessions. Thus, the Guide should be revised to provide plans for shorter and longer implementation periods. Teachers, volunteers, and students also reported that neither the Guide nor the Student Workbook adequately explain the concepts of charitable giving or market research. One volunteer noted that students only learn that increasing investment in either of those activities usually results in increased sales, but that they never learn why. In focus groups, students also expressed a lack of understanding about these concepts.

### **Conclusion**

Generally, the findings indicate that overall program satisfaction is high among teachers, volunteers, JA member site staff, as well as students. Volunteers and teachers, in particular, expressed a high level of enthusiasm for the *JA Titan* program and made clear in interviews that their teamwork, planning, and coaching of students are crucial to the program's success; these perceptions were reinforced by classroom observations. Perceptions of *JA Titan* program benefits are especially high in the areas of core workforce-readiness skills, such as decision-making, critical thinking, and problem solving, as well as in communication and teamwork. Further, the computer-based simulation generally is perceived to be an ideal learning tool for the cultivation and enhancement of such skills. The program is widely perceived among stakeholders and participants as effective in facilitating the understanding of basic business and economics concepts and increasing student engagement, particularly because of the simulation's competitive element. The majority of teachers, volunteers, JA Staff, and students also perceived that the *JA Titan* program has had a positive impact on student attitudes towards business, in particular, and in some cases economics, as well.