

## JUNIOR ACHIEVEMENT AZERBAIJAN

### SCHOOL ECONOMICS AND BUSINESS EDUCATION PROGRAM

#### First Program Evaluation

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### 1. INTRODUCTION

The School Economic and Business Education (SEBE) program is funded by BP and partners and implemented by Junior Achievement Azerbaijan (JAA). The program was launched in July 2007 in the districts within the Baku corridor area (Garadagh, Sabayil and Khatai). The goal of the program is to foster development of the workforce with the economic and business knowledge and skills adequate for a market economy through training and activities for secondary school students and interested community members.

JAA is committed to active promotion of organizational learning, and has established a tradition of external and mixed program evaluation activities. The current evaluation report is a product of one of 5 evaluations scheduled within two years of the SEBE program.

JAA staff has conducted pre-program evaluation in September 2007 that established an important baseline for the further comparative assessment. In addition to this activity, 4 more SEBE evaluations are to be conducted within the 27-month period, aiming to assess the impact of the program activities.

The purpose of this evaluation is to provide an early assessment of the performance and effectiveness of the SEBE program, which has been running for 10 months. The current report provides information on the interim program outcomes. It is expected that the

evaluation results will be presented to the program donors, and also will help JAA staff improve and modify the program activities, by accentuating more effective and attractive components, and by reflecting upon the weaker and less successful aspects.

This report centers on the evaluation questions defined in the Evaluation Terms of Reference (Annex A) through consultations with the management and staff of JAA. Results of the evaluation are provided in the Findings section, followed by Conclusion and Recommendations.

The evaluation has been conducted by an independent evaluator with the direct involvement and support of the program staff. Surveys were administered by selected school teachers. The author is grateful to all participants of this assessment, and in particular to Tahmina Hajiyeva, Program Assistant, for her continuous invaluable support.

## **2. PROGRAM BACKGROUND**

A subject of economics has become a part of general school curriculum in Azerbaijan since 1999. The course program adopted at that time was based on an outdated textbook and has not been essentially updated ever since. Since 2000 JAA has been working to improve the teaching of business and economic, as well as to promote student interest and participation in related activities.

Drawing on its extensive experience in economics education, in 2007 JAA has initiated School Economic and Business Education Program in partnership with BP and partners. SEBE is implemented in three Baku districts along the Baku-Tbilisi-Ceyhan pipeline.

*The strategy of the program is to create a workforce of economically and business-educated young people and to provide necessary skills and knowledge to the young generation of future business leaders who appreciate free market and business values. It is expected that the program will help the high school students choose their next steps towards careers, as well as providing essential education that each citizen should possess in a market economy.*

The program consists of the following components:

1. School selection
2. Teacher Training (TT)
3. JA Economics classes and printing of textbooks
4. Student Companies
5. Hewlett Packard Global Business Challenge
6. Management and Economic Simulation Exercise
7. Student Internship Program
8. Program Evaluation
9. Business training for interested community members and apprenticeship students.

## 10. Partnerships with BP implementing partners in Baku corridor

The program inputs, activities, as well expected outputs and outcomes are represented in the chart below.

<b>Program Logic Model</b>						
<b>Inputs</b>	<b>→</b>	<b>Activities</b>	<b>→</b>	<b>Outputs</b>	<b>→</b>	<b>Outcomes</b>
<b>Resources dedicated to the program:</b>		<b>What the program does with the inputs to fulfill its mission:</b>		<b>Expected direct products of program activities:</b>		<b>Expected benefits for participants during and after program activities (observable change):</b>
1. Grant Funds 2. Staff time (5) 3. Facilities 4. Transportation 5. Volunteers from business community 6. Partnership with government, organizations and business companies		1. Selects schools in three target districts together with MoE and Madad		1. 15 schools participate in the program in the first year		<ul style="list-style-type: none"> <li>Expand the number of schools engaged in the program.</li> </ul>
		2. Train teachers from the participating schools in JA economics		2. 30 teachers are trained in JA Economics and score 70 out of 100 on the post-test		<ul style="list-style-type: none"> <li>Improve teachers' capacity for teaching the program's Economics curriculum</li> </ul>
		3. Print Economics textbook developed by JA and distribute to students. Conduct classes in the selected schools according to JA's modern economics curriculum		3. 2,500 students have received JA Economics textbook and participate in JA Economics class weekly.		<ul style="list-style-type: none"> <li>Introduce up-to-date scientific background and economic notions to economics classes</li> <li>Teach students basic Economics (micro- and macro-economics)</li> </ul>
		4. Provide trainings on business and management to selected students who will develop business plans in teams		4. 100 students participate in Student Companies and develop 20 business plans		<ul style="list-style-type: none"> <li>Help students apply knowledge and skills gained in theory in practice</li> </ul>
		5. Engages students in international business competition HWGBC		5. 30 students successfully participate in HPGBC		<ul style="list-style-type: none"> <li>Provide opportunity for international exchange of economic knowledge and practice</li> </ul>
		6. Engages students in a national real-world business competition MESE		6. 60 students successfully participate in MESE		<ul style="list-style-type: none"> <li>Teach students entrepreneurship and encourage future business activity</li> </ul>
		7. Creates internship opportunities for students with business companies		7. 8 students are accepted for internships with business partners		<ul style="list-style-type: none"> <li>Teach students career requirements and jobs and help students to identify their future career goals</li> </ul>
		8. Provides basic economic and business training for apprentices and community groups in cooperation with Umid		8. 75 community members and apprentices participate in three-month training program.		<ul style="list-style-type: none"> <li>Introduce basic business and economics ideas to communities</li> </ul>

During the program's first 10 months, school selection, teacher training, JA economics classes and printing of textbooks, and Student Companies component have started. The following 17 schools participate in the program:

Location	School #	# of classes (9 <sup>th</sup> grade)	# of classes (10 <sup>th</sup> grade)
<b>Garadagh District</b>			
Sangachal	222	5	4
Sahil	Internat 14	4	
Sahil	253	7	6
Sahil	319	3	2
Sahil	228	6	7
Sahil	273	10	7
Umid	294	1	1
<b>Sabail District</b>			
Bailovo	49	6	6
Bailovo	203	3	3
Bailovo	163	6	6
Bailovo	91	4	5
Bibi Heybat	162	7	6
Bibi Heybat	Agdam 96	1	1
Bibi Heybat	51	5	5
Shikovo	50	2	2
<b>Khatai District</b>			
Ugur	116	6	6
Inam	63	8	7

### 3. METHODOLOGY

Based on the lessons learned from the previous evaluation experience with JAA that demonstrated the limited informational value of self-assessment and opinion surveys, it was decided to use a different combination of data collection methods, including focus groups, tests, and surveys.

Data triangulation was achieved through the use of various information sources, such as teachers, administrators, staff and students. Pre-program evaluation results were used as a comparison for this evaluation. All 17 schools participating in the program were covered within the evaluation. Program-related documentation has been reviewed by the consultant.

**Multi-choice test on economic and business knowledge** was conducted among 200 students of 17 schools participating in SEBE program. To eliminate the bias arising from teacher-nominated respondent selection, interviewers were instructed to randomly select students at each school. On average, 11 students from each school (the actual number

depends on the number of 10<sup>th</sup> grades in each school) completed the multiple-choice test. The tests included questions from the JAA economics program based on the new text book distributed in the participating schools. The test results were compared with the pre-program evaluation results.

**A written economics test** was conducted among 14 teachers that have participated in JAA teacher training completed written test. The test results were compared to the pre-program and post-training teacher test results.

**Focus group discussions** (3) were held with the 30 students from 4 target schools.

**Interviews** were conducted with three teachers of JA economics and participating in student companies.

**Survey for teachers and school administrators**, focusing on economics teaching methodology, was conducted among 28 respondents in 17 schools.

#### 4. FINDINGS

The direct **products** of the program activities from the first 10-month period are compared to the planned outputs in the table below. This information is also available in the Quarterly Program Report (April 2008).

Expected program outputs (within 27 months of the program)	Interim program outputs
1. 15 schools participate in the program in the first year	1. 17 schools participate in the program
2. 30 teachers are trained in JA Economics and score 70 out of 100 on the post-test	2. 28 were trained in JA Economics and scored 79 out of 100 on the post-test.
3. 2,500 students have received JA Economics textbook and participate in JA Economics class weekly.	3. 2,500 textbooks were printed and 1,685 were distributed. 1,685 students attend weekly JA Economics classes.
4. 100 students participate in Student Companies and develop 20 business plans	4. 80 students participate in Student Companies in first year
5. 30 students successfully participate in HPGBC	5. Not conducted yet
6. 60 students successfully participate in MESE	6. Not conducted yet
7. 8 students are accepted for internships with business partners	7. Not conducted yet

8. 75 community members and apprentices participate in three-month training program.	8. 26 teachers participated in community training on Business Management. 16 teachers conduct business trainings for 85 community members.
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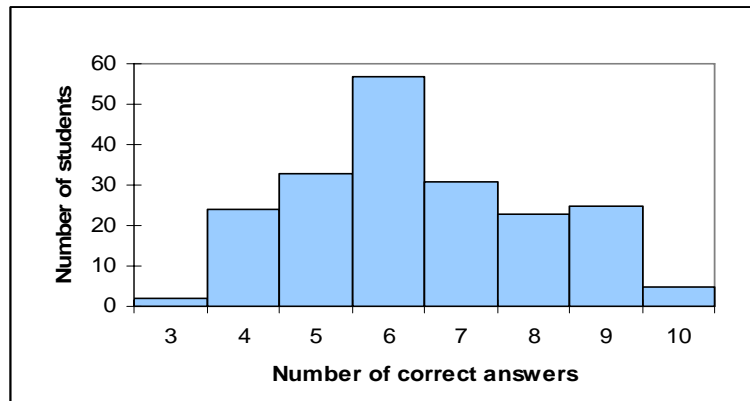
The actual program **outcomes or benefits** provided to the program participants are summarized in the following table.

<b>Expected benefits for participants during and after program activities</b>	<b>Interim benefits for participants after 10 months of program activities</b>
<ul style="list-style-type: none"> <li>• Expand the number of schools engaged in the program.</li> </ul>	<ul style="list-style-type: none"> <li>• Has been achieved, more schools than initially planned were reached.</li> </ul>
<ul style="list-style-type: none"> <li>• Improve teachers' capacity for teaching the program's Economics curriculum</li> </ul>	<ul style="list-style-type: none"> <li>• The teacher's capacity has improved as demonstrated by the test scores.</li> </ul>
<ul style="list-style-type: none"> <li>• Introduce up-to-date scientific background and economic notions to economics classes</li> </ul>	<ul style="list-style-type: none"> <li>• Modern economic and business notions are introduced through the up-to-date economics textbook and by trained teachers.</li> </ul>
<ul style="list-style-type: none"> <li>• Teach students basic Economics (micro- and macro-economics)</li> </ul>	<ul style="list-style-type: none"> <li>• Basic economics is taught on the basis of the new program and textbook.</li> </ul>
<ul style="list-style-type: none"> <li>• Help students apply knowledge and skills gained in theory in practice</li> </ul>	<ul style="list-style-type: none"> <li>• Some students apply acquired skills and knowledge in the Student Companies project</li> </ul>
<ul style="list-style-type: none"> <li>• Provide opportunity for international exchange of economic knowledge and practice</li> </ul>	<ul style="list-style-type: none"> <li>• The related activity not started yet</li> </ul>
<ul style="list-style-type: none"> <li>• Teach students entrepreneurship and encourage future business activity.</li> </ul>	<ul style="list-style-type: none"> <li>• The related activity not started yet.</li> </ul>
<ul style="list-style-type: none"> <li>• Teach students career requirements and jobs and help students to identify their future career goals</li> </ul>	<ul style="list-style-type: none"> <li>• The related activity not started yet</li> </ul>
<ul style="list-style-type: none"> <li>• Introduce basic business and economics ideas to communities</li> </ul>	<ul style="list-style-type: none"> <li>• This component was not assessed yet</li> </ul>

### **To what extent are students benefiting from the program: how successful students are at the course?**

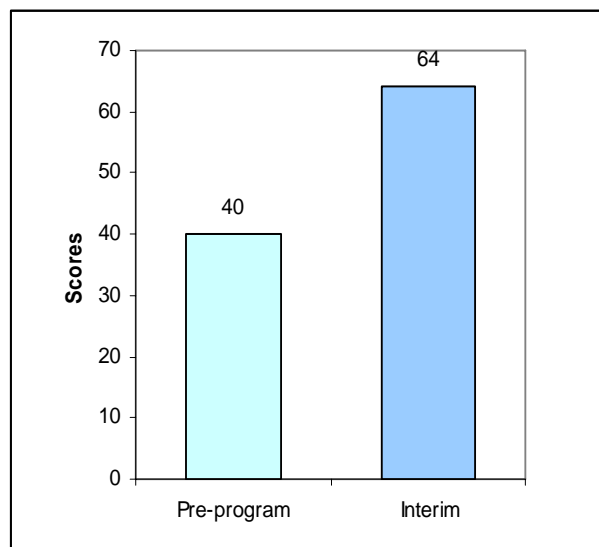
To answer this question, a multiple-choice test on general economic and business knowledge was administrated to 10<sup>th</sup> grade students. The test results were compared to

the results of the pre-program test administered at the same schools. Pre-program test was administered to 240 students from 16 schools, and contained 10 questions. The new test, administered to 200 randomly selected students from 17 schools, also had 10 questions. Half of them were kept the same as in the pre-test and half were replaced with new ones.



**Pic 1. Distribution of correct answers to the student multiple-choice test**

The average number of correct answers to the test was 6.42. Thus, the average score was 64 out of 100, while the average score on the *pre-program test* was 40 out of 100.



**Pic. 2 Comparison of test score averages: pre-program and interim results**

As evident from the pre-program and interim test scores, students have significantly increased their knowledge on business and economics after the first 9 months of participation in SEBE program.

**To what extent students' attitude to business and economics has changed?**

Although evaluating this may be considered preliminary at this point, this question has been raised during the focus group discussions with students and interviews with teachers. In the schools of this region, differently from other regional schools involved in JAA activities, the overall interest towards the theoretical subject of economics can be considered not very high, however, majority of students are interested in business and economy in general. All students seem to understand that economy is an important part of the modern life, and many expressed a wish to own a business in future. Several students reported a change in attitude towards economics after taking economics class.

It is worth mentioning that participants of three focus groups differed in the degree of interest towards the subject. This could be partially explained by the fact acknowledged by students: their attitude to the class depends to a large extent on the teacher's personality. *"Teacher should motivate students, should stir their interest in the class"*.

It was emphasized by both teachers and children that one hour of economics per week is not enough to capture the whole material.

Student attitude to business and economics and future education/career preferences (next question) are interconnected. In higher grades (9 to 11) of Azerbaijan's typical school, interest to different classes depends on one's future education and career plans. The reason is that university admission exams are focused on the subjects related to the selected specialty. Therefore, during last school years students tend to concentrate on subjects covered at the admission exam for their selected group of specialties.

The problem with economics class is that although there is a separate group of university specialties related to business and economics, neither school graduation exam, neither university admission test do not test knowledge gained during this class. Instead, students applying to that group of specialties are tested mainly on math, geography and languages.

The absence of school graduation tests on the economics class results in lower student motivation. *"Some students don't take the class seriously, and focus instead on subjects that are tested on graduation or entrance exams"* – a teacher's comment. This tendency makes JAA programs even more important and relevant in improving attitudes to economics at schools, but necessitates extra efforts to achieve it.

### **Are future education/career preferences influenced by the program?**

While some students mentioned that their future plans were influenced by the economics class, in general, majority make their career and education decisions outside the classroom, and independently of the class quality. A conclusion could be made that while JA economics class aims to furnish students with necessary general knowledge, it is not the main education/career motivational component of SEBE program. Whereas such program components as Student Companies, HPGBC, MESE and Student Internship Program, still to take place within SEBE, are designed to influence future preferences, and therefore should be evaluated as to whether they succeed in this role.

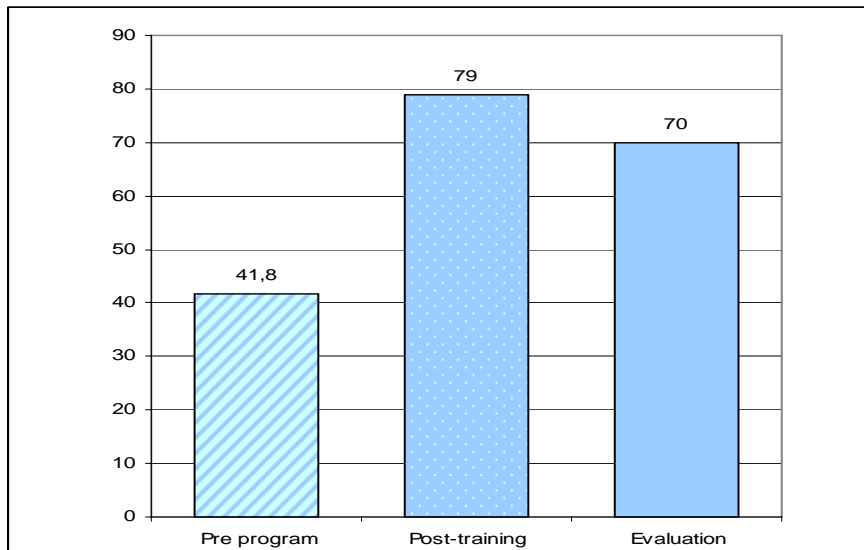
Hands-on activities are more instrumental in shaping student preferences, as they provide an opportunity to apply skills and knowledge in practice and see the results of own work. It was evident from students' feedback that practical activities, competitions and exercises would have a much higher motivational effect.

### To what extent is the quality of the textbooks/manuals satisfactory?

There was a consensus among the students on the superiority of the JA economics textbook. Students rate the book as easy to understand, modern, relevant, and interesting. No reports of difficulty with the textbook were received. Those students who had a chance to compare both books stated their preference for JA Economics for its clear language and engaging contents.

### To what extent are teacher trainings effective?

Teacher trainings provided by JAA prove to be highly effective. This is confirmed both by students, noting the difference in classes conducted by teachers trained by JAA and those who didn't attend this training, and by the results of the written test, administered to 14 teachers. The test results were compared to the pre-program test results, and post-training test results, all consisted of three questions.



**Pic. 3 Teacher pre-program, post-training, and evaluation test results**

As seen from the picture above, after the program started, teachers' business and economics knowledge has increased substantially. An average of 41.8 was scored at the pre-program test, 79 was the average score of the post-training test, and 70 points was an

average of the evaluation test<sup>1</sup>. A slightly lower result of evaluation test as compared to the post-training test is natural, since acquired knowledge tends to get rusty over time. The solution is to provide periodic review and refreshment sessions, and other follow-up activities to teachers.

The JAA teacher training is also highly relevant and important since economics is mostly taught by history, geography and math teachers, who generally have rudimentary knowledge of economics concepts.

In addition to providing teachers with updated economics knowledge, JA training also provides new, interactive teaching methodology. While interviewed teachers appreciate this methodology and note its superiority to the old-school, traditional “Soviet” teaching methods, there is a significant resistance to new methods at schools. An interviewed teacher mentioned that although most teachers attended a special training on interactive teaching techniques by the Ministry of Education, only one teacher at his school uses such methods; this teacher is often disapproved of and criticized by his colleagues.

Nonetheless, a promising development is the decision by the Ministry of Education to adopt interactive teaching methodology at the 1<sup>st</sup> grades of the upcoming school year. This raises hopes for a change in teachers’ attitude to the new methods and their classroom application.

### **To what extent are students benefiting from the Student Companies?**

This component has just been just started at the time of evaluation. Nevertheless, students were asked about their participation in this project during the focus group discussions.

Within this component, one group of students at each school works together on the development of a business plan for own company and best plan wins a competition. The project attracts quite high interest from students. In one school, 12 students participate instead of required 5. A test to select participants was conducted in all classes participating in the focus groups, but the selection was also guided by the activeness and interest of students.

Most groups work on the business plans independently with little teacher supervision. Although all schools have computers, not all are connected to the internet, and students meet at each others’ places or internet-clubs to work on the project.

Students mention that practical exercises such as Student Companies provide them with real, applicable knowledge and skills, something they can use later in life. A competitive character of the exercise adds excitement and motivation.

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<sup>1</sup> The evaluation teacher tests were assessed by the evaluator and the results may differ if assessed by a different person.

## What are the program's strengths and weaknesses?

The SEBE program's main strengths are the following:

- Increases students' knowledge of economics and business;
- Brings modern concepts to the classrooms through a new textbook;
- Increases teachers' capacity to teach economics;
- Encourages student interest, participation and initiative;
- Provides a venue for practical application of acquired skills and knowledge;
- Encourages the use of ITC by students and teachers;
- Increases student interaction and stimulates team work.

The following challenges related to the program implementation were identified:

- Lack of teachers with required background and skills;
- No incentive for teachers to use interactive techniques;
- No peer review/monitoring mechanism;
- Insufficient number of economics classes in the school program.

## 5. CONCLUSION

### Does the program contribute towards the stated goals/outcomes?

The overall question guiding this evaluation is whether the program contributes towards its goal to *develop the business workforce through economic and business training for secondary school students and other interested community members.*

The program undoubtedly succeeds in bringing *economics knowledge* to the 10<sup>th</sup> graders in the target schools of three Baku districts through the JA economics class supported with an updated textbook and advanced teacher training. As mentioned in the previous JAA evaluation, JA textbook is a great source of up-to-date and relevant economic knowledge for school teachers and children, distributed free-of-charge at the participating schools. The text was further developed in the latest edition that addressed several shortcomings, including the lack of information about Azerbaijani economy and business.

As demonstrated by the school principal survey, 10<sup>th</sup> grades at all SEBE schools conduct their classes according to the JA programs. Given that the student motivation to participate in economics class is usually somewhat low because of absence of exam on the subject, JA programs are particularly relevant and indispensable as they stimulate student interest and reinvigorate the class.

The program provides business training through the JA economics classes, and also through the Student Companies project that attracts interest of many children. Practical,

hands-on activities play important role in motivating student interest. The program's impact on improving the business skills and increasing interest to business is still to be seen as three main real-business program components have not started yet.

As evident from the tables comparing the planned and interim program outputs and outcomes (pages 5-6), the program has successfully achieved its stated objectives so far. Some recommendations for the further program improvement are presented below.

## **6. RECOMMENDATIONS**

- In view of high usefulness of teacher trainings and importance of regular revision, increase the post-training follow-up activities for teachers by providing them with an opportunity to receive consultations and exchange with their colleagues.
- Organize peer visits – “open lessons” – between schools to stimulate sharing of experience and best practices.
- Regularly monitor the conduction of classes, practical exercises and distribution of provided materials at schools.
- Promote application of new interactive teaching methods of economics at participating schools.
- Develop additional methodological materials and exercise books for teachers.
- Promote allocation of additional hours to the economics class.
- Together with school directors, consider the possibility of conducting mid-term/final tests or other evaluation methods for the class.