Evaluation Report: "Language Arts for ESOL" by OneTree Learning

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Language Arts for ESOL

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Evaluation Report for "Language Arts for ESOL" by OneTree Learning

Introduction

The purpose of this evaluation was to evaluate the effectiveness of the OneTree Learning Language Arts for ESOL program. Language Arts for ESOL is a software product which helps ESL students gain academic vocabulary in English language arts in grades 3 through 6. The findings and recommendations stemming from this evaluation are intended to help the clients make the following decisions:

- 1. How should the product be implemented for best success?
- 2. Should any modifications be made to keep the package attractive as opposed to other similar packages on the market?
- 3. Should any modifications be made to make the product more effective for the target audience? For secondary audiences?

Participants in this evaluation included:

- Latin American adult learners at the Columbia Area Adult Learning Center, located in Columbia, Missouri
- Dr. Viktoria Driagina-Hasko, an assistant professor in Department of Language and Literacy Education of The University of Georgia,
- Ms. Jeanne Van Lengen-Taylor, a teacher in the Douglas Adult Learning Center, and
- Ms. Courtney Siewert, an ELL teacher at West Junior Middle School.

The methods used to collect data included pre- and post-test for learners, focus group interviews with learners, and expert reviews. The data collected from the pre- and post-test was compared based on the length of time the software was used. The focus group data was summarized and coded into three categories i.e. supports for implementation, learner experiences, learning effectiveness.

There were a number of limitations including locating the appropriate participants for the evaluation, time constraints in getting the software sufficiently installed at the evaluating institutions and restrictions in collecting the data due to inclement weather. The overall impact of these limitations is that the

generalizability of the effectiveness data has been decreased. However, although the effectiveness data may not provide enough specific information to generalize learning effectiveness beyond the contexts in which the evaluation was conducted, the process of performing the evaluation did yield valuable information.

Key Findings

The key findings of the evaluation demonstrate the following:

In regards to supports for implementation:

- Teachers had some difficulty in incorporating the product into their teaching, due to a lack of placement testing procedures which can be provided by a pre-test in the software
- There is difficulty installing the software across a variety of computers

In regards to learner and user experience:

- Is engaging and age-appropriate for both young children and adults
- Has quality graphics and sound which are implemented well to make using the program an enjoyable experience
- Based on the maturity and language level of participant there should be some measure of control
- In order to support learners, instructions/documentation should be provided stating the level of computer literacy required for optimum use.

In regards to learning effectiveness:

- · Has stories which provide references to similar stories from different cultures
- Was difficult for participants with a low reading level
- Was good for practicing pronunciations with adult ESL learners
- Was found by experts in review to have some shortcomings:
 - There is a mismatch between the level of the language used for instruction and that studied
 - The immediate presentation of narrative transcripts may detract from maximum learning potential

• There are some examples of mis-categorization of vocabulary words

Recommendations

Key recommendations are as follows:

- Create a placement pre-test to insure that users are at the correct level for use of the software.
- Include lessons for lower-level students, or create a separate lower-level package that develops the skills required for use of this package.
- In lower level lessons, remove instructional language that is above the level of the lesson (by, for example, moving instructions to a teacher's guide). In higher level lessons, introduce key vocabulary required to deliver instructions in English.
- Delay the presentation of transcripts of spoken language until after learners have had a chance to focus on aural comprehension.
- Correct installation issues (technical fixes)
- Provide an in-depth teacher manual to assist instructors' implementation

Introduction

This report describes the evaluation performed by Optimus Censeo of the software "Language Arts for ESOL" for *OneTree Learning*, the developers of this software. Language Arts for ESOL is a software product which helps ESL students gain academic vocabulary in language arts in grades 3 through 6. This report describes the background, purposes, clients and stakeholders, methods and instrumentation, findings and recommendations, and limitations pertaining to those findings.

The evaluation was created and conducted by members of the Optimus Censeo team, which is composed of four graduate students from the University of Georgia and the University of Missouri-Columbia. They were supported and guided by Dr. Thomas Reeves, their instructor and University of Georgia professor. The members of the Optimus Censeo team are:

- Tony Gonzalez, graduate student, University of Georgia
- Jea Choi, graduate student, University of Georgia
- Camille Dickson-Deane, graduate student, University of Missouri-Columbia
- Krista Galyen, graduate student, University of Missouri-Columbia

Background

About the company

OneTree Learning (OTL) supports students learning English as a second language (ESL). The company provides not only English learning services, but also acts as a guide to help students become more prepared for academic classrooms. The company website (<u>http://onetreelearning.com</u>) provides information about the software Language Arts for ESOL, including an overview, scope and sequence, methodology that describes the rationale and justification behind the software, and screenshots.

About the product

Language Arts for ESOL is a CALP- (Cognitive Academic Language Proficiency) based program that teaches a core curriculum of language arts to English language learners. OTL's Language Arts for ESOL can be used either as a dedicated ESL curriculum, or as a supplementary program to assist ESL students within existing mainstream classes. No specialized ESL training is necessary for non-ESL teachers to use the program. The program teaches the basics of language arts and provides an interactive environment in which students practice speaking, listening, reading and writing.

The program uses stories and games to keep students interested and motivated. Native language support helps students follow the lessons. The program's methodology includes a blend of whole-language activities as well as skills such as phonemic awareness, grammar, and punctuation.

The program is content based, meaning that it teaches actual language arts and not just ESL. Students learn in a variety of ways and OTL's Language Arts for ESOL is designed to accommodate differing learning styles (auditory, visual, tactile, global, and analytical). Students can use a translation button to help them understand the lessons better. Students read authentic texts, not ones written for ESL students, making the learning more meaningful. Each lesson is centered on a certain theme, making information cohesive and easier to remember. Each unit contains a variety of activities to keep the students interested and motivated. Students learn vocabulary in context and this vocabulary knowledge increases academic success (Senechal & Cornell, 1993).

Rationale and Research

Language Arts for ESOL is attempting to fill the need for ESL learners to gain competence in academic language, in particular Language Arts. Collier and Thomas (1989) stated that rather than providing ESL instruction as a separate and distinct activity, it is more beneficial to integrate the ESL instruction with the academic content. Met (1991) also found that students learning their second language (L2) benefitted more when it was presented within meaningful academic lessons rather than de-contextualized. In other words, it is better to assist students' language in reading and writing while they are actively engaged in the act of reading and writing rather than have a session merely discussing and practicing the vocabulary associated with this area. Language Arts for ESOL is based upon these findings on how to most appropriately facilitate the learning of academic language skills.

OTL has completed formative evaluations of the product, and the Optimus Censeo was requested to carry out an effectiveness evaluation to better understand how learners learn from the product, if the product accomplishes its stated objectives, and how best to implement the program for optimum impact.

Representative screens from the program

To assist the reviewer of this plan in better understanding of OTL's Language Arts for ESOL, a series of screen captures from the program are presented. There are six units in the program with each unit having three lessons (see Figures 1 and 2).



Figure 1 Unit Menu



Figure 2 Unit 1 Menu

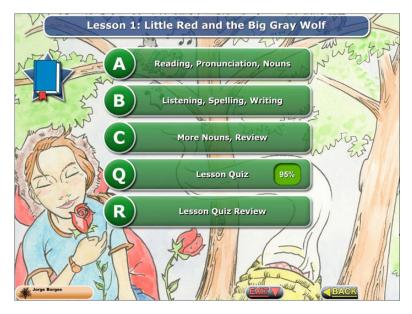


Figure 3 Unit 1 Lesson 1 Menu

Figure 3 shows the basic components of each lesson. The menu bar turns to green after the learner complete each section. The naming of the components are different in each lesson, however, the use of similar words and phrases in titling is consistent throughout the program. Figure 4 shows a page from the story in Lesson 1, used for reading and listening. The sentence being read by the narrator is highlighted in yellow.



Figure 4 A page from the story Little Red and the Big Gray Wolf

Figure 5, shows that the words in blue are the specific vocabulary words for the lesson. The words in red are also important words to know and this will be reviewed in the end of the lesson again. Clicking on the highlighted words will play the word's pronunciation in English. Then the learner may click on the translate button to hear the word again in their native language.



Figure 5 Page with translation

Each lesson has various activities such as spelling test where the user can reorganize the alphabet to make a word, by either typing on the keyboard, or clicking on the letters in the screen. There are more features such as the pronunciation page, where the user can listen to each words and compare the sound and the writing activity where the learner writes a story that is saved in a database for future evaluation. At the end of each lesson is a review for the Lesson and at the end of the Unit is an assessment of the Unit (see Appendix I).

Purposes

The main goal of the evaluation project was to evaluate the effectiveness of the *OneTree Learning* "Language Arts for ESOL" educational software program. OTL had previously had usability information but was mainly concerned about learning effectiveness for both younger learners as well as adult learners. The information from this evaluation would be used to guide OTL in making decisions regarding future development of the software program as well as marketing. Because of this, our evaluation contains both formative and summative purposes. Formative aspects inform decisions on how to improve the software,

while summative aspects will inform client decisions on how well it is working (for example, how well and to what extent does this program facilitate English learning).

In order to help the client make decisions regarding future development and marketing, we focused on evaluating the following:

- supports for implementation
- usability and learner experience
- short-term learning effectiveness

Clients and Stakeholders

The primary stakeholders are the owners/creators of the OneTree Learning product and the users/learners, represented by Mr. Christian Sykes and the audience, respectively. The E-learning program was created for learners who are studying English as a Second Language (ESL) and was primarily gauged for Grade 3 learners but has since then been also used with adults. This also means that institutions where the product is or will be implemented are also primary stakeholders. The perceived value for money as well as the success in fulfilling the goal of the program is of great importance to these stakeholders.

The secondary stakeholders are the executors of this plan, including the evaluation team and Dr. Thomas Reeves (the Instructor for the course) and the participants of the evaluation exercise. The ability to provide a report that conveys to the primary stakeholders whether the E-learning program is successfully attaining its intended goal is of prime importance to these stakeholders. Hence, producing a sufficient report to the primary stakeholders (specifically Mr. Sykes) would suggest that the best effort was made on behalf of the evaluators to assist in the evaluation of the OneTree Learning product. The participants of the exercise have recognized the potential importance of the product to their educational programs and as such felt that it would benefit them to participate knowing that the participation potentially allowed them continued use of the product.

Decisions & Questions

This effectiveness evaluation was conducted to assist with decisions that needed to be made concerning the future of the e-learning product, in particular future development and marketing. Usability evaluations were previously conducted by OTL (with much positive feedback) and for efficiency and marketability, an effectiveness evaluation was needed. In order to provide recommendations regarding their decisions, related questions were asked:

Decision 1: How should the product be implemented for best success? (supports for implementation)

- a. How should instructors be trained?
- b. What are instructors' perceptions and experiences while implementing the program?
- c. What additional information do instructors need regarding implementing the program in their classroom?

Decision 2: Should any modifications be made to keep the package attractive as opposed to other similar packages on the market? (usability and learner experience)

- a. How does it compare with other packages on the market?
- b. To what extent do learners enjoy using the product?
- c. What modifications might be made to improve the learner experience?

Decision 3: Should any modifications be made to make the product more effective for the target audience? For secondary audiences? (learning effectiveness)

- a. What immediate learning effectiveness is achieved (in language arts proficiency and knowledge) with children? Effectiveness
- b. What learning impact is achieved (in language arts proficiency and knowledge) with adults? Effectiveness
- c. What impact in terms of learning gain in the learners are perceived by instructors/teachers? perceived impact
- d. What are expert reactions to this system?

Methods

Table 1 contains an evaluation matrix that lists the questions addressed with the types of evaluation methods used. Triangulation (examination of single questions using multiple tools) was used in order to ensure as accurate data as possible and prevent mono-method bias.

The following methods were implemented in the evaluation:

- learner focus groups
- learner pre-tests
- learner post-tests
- expert reviews
- expert interviews
- observation

Original Methods vs. Implemented Methods

The original evaluation methods consisted of involving participants at three levels: expert review at UGA, expert learner review and young learner evaluation at Columbia middle schools, and expert learner review and adult learner evaluation at Columbia Area Adult Learning Center. Unfortunately, final evaluation methods deviated largely from original plans. In each section we'll describe the intended methods, the actual methods implemented, and the reasoning and circumstances behind the changes.

Expert Review at University of Georgia

It was originally intended that expert review would consist of several professors or at least one professor and several doctoral students who are trained in English as a Second Language located at the University of Georgia (UGA). Optimus Censeo team members located in Georgia would question as well as hold a focus group among expert reviewers.

Unfortunately only one out of six experts approached was able to be a part of the expert review process at UGA. Therefore, a focus group was not performed since only one was involved at that location.

Expert Learner Review & Young Learner Evaluation: Columbia Schools

It was originally intended that to add to the expert review would be expert learner evaluations, which were instructors implementing the software who would be able to comment both as an expert as well as a learner and user of the software program. It was originally intended to have approximately 2-3 instructors involved

who taught middle school English Language Learning (ELL), and they would implement the software in their classrooms for approximately 4-6 weeks. After this implementation, they would respond to questionnaires individually as well as be a part of a focus group in which they discuss their expert experiences and opinions on the program.

The Columbia School District ELL coordinator in Columbia, Missouri was contacted regarding the implementation and evaluation of the software for young learners. Over the course of several weeks, the district coordinator had established several classrooms who were willing to implement the software in their classrooms. At this point in time we would have approximately four to six weeks to implement the software with the children.

However, due to school district protocols all software installations on servers must be approved. (Server installation would allow all computers in the computer lab to access the program and the teacher to access student data in one place.) While OTL was more than willing to talk to the school district in support of installation, the delay in approval of installation was more reflective of the procedures and "red tape" than worries about the software itself. Unfortunately, as of the date of this evaluation writing, the software is still "waiting for approval" by district IT.

After a creative solution was found (installing software on the one classroom computer), only one teacher was still willing to participate; in addition, valuable implementation time had passed. However, when attempting to install the software we then noticed a bug that doesn't allow the user to install from the desktop. After another week, a "workaround" was found and we were able to implement the software. That left approximately 2 weeks (after extending to the maximum time left) for the teacher to implement the software in her classroom.

The classroom has one computer and as such, would require the teacher to schedule her students each a time at the computer over the course of the two week period. However, due to various reasons, the instructor chose to just have one student to use the program approximately every other day. Unfortunately the student used the program for only approximately 45 minutes total across those two weeks, so limited data could be obtained from students.

Due to this, a focus group was not used (no the questionnaire) for either the experts or the students, and only a semi-structured interview was performed with the instructor utilizing the focus group questions. Pre-tests were conducted with the entire class but the post-test was only given to the one student who used the program.

Expert Learner Review & Adult Learner Evaluation: CAALC

Jeanne Van Lengen-Taylor, the ESL enrichment instructor contacted the evaluator via advice from the Assistant Director of the Columbia Career Center in Columbia, Missouri. She initially expressed interest for a particular Vietnamese student who was an Engineer by profession in his country but was having problems learning English, therefore delaying possible job opportunities. The student expressed a great level of interest but in the two weeks of discussions, he never returned to the Center. The evaluator then asked about Spanish speaking participants of the ESL program and Jeanne asked two students if they were interested. Their interests lead to a number of discussions as to which machines would be most appropriate to house the software. Jeanne was given access to the web address to gain access to the software but had problems downloading the software. The evaluator then visited the school with a version of the software downloaded to a portable flash drive and attempted to install the software. There was a choice of three machines and each had a number of challenges. Two were restricted from recognizing flash drives and the one machine that worked would not install the software. Attempts were made to troubleshoot the problems of installation with the client, the Information Technology Department for the Columbia Career Center as well as between the evaluation team. Success was finally made ten working days later with the combined assist of the IT Department and the evaluation teams troubleshooting skills.

Inclement weather proved to be the next challenge for the Adult learners and the evaluator as data collection had to be postponed due to the closure of the Columbia Public School System. The first day, that the schools reopened the evaluator attempted to collect the data and was able to successfully collect data from one participant; the actual turn out for the school was very low which would explain the absence of the other participant. Pre-tests were completed for two adult learners, one adult learner completed the post-test and the focus group/interview and the expert reviewer completed the review of the software.

Table 1. Evaluation Matrix

Question	Learner focus groups or Interviews	Pre- & post tests	Expert reviews	Observation
1. How should instructors be trained? [AP]	Х			
2. What are instructors' perceptions and experiences while implementing the program? [AP] [AC]	Х			
3. What additional information do instructors need regarding implementing the program in their classroom? [AP]	Х			
4. How does it compare with other packages on the market? [E]			Х	
5. To what extent do learners enjoy using the product? [AC]	Х			X
6. What modifications might be made to improve the learner experience? [E]	Х			
7. What modifications might be made to improve the usability? [E]	Х			
8. What immediate learning effectiveness is achieved (in language arts proficiency and knowledge) with children? [E]	Х	x		
9. What immediate learning effectiveness is achieved (in language arts proficiency and knowledge) with adults? effectiveness	Х	X		
10. What impact in terms of learning gain in the users are perceived by instructors/teachers? [E]	Х			
11. What are experts reactions to this system? [E] [AP] [AC]			Х	

Domains: [E] – Effectiveness [AP] – Applicability [AC] - Acceptability

Sample

Participants in this evaluation included both learners and experts.

Learners

Students

- Adult learners included two Latin American adult learners at the Columbia Area Adult Learning Center located in Columbia, Missouri. The first student is from Ecuador, has been speaking English for one year and is 24 years old. The second student is from Mexico, has been speaking English for five years and is 28 years old. Both are part of a class of approximately 10-15 diverse students who meet four times a week for two hour English classes.
- Young learners included a middle school classroom in Columbia, Missouri made up of twelve 7th and 8th grade ELL (English Language Learning) students. Ten out of twelve of these students are classified as being of "refugee" background. The students are from various cultural backgrounds such as: Haitian, Iraqi, Kenyan, Mexican, and Cuban. The students all speak at a minimum basic conversational English but are at various levels academically. Explained in the methods section above, only one young learner of the above used the software.

Expert Learners, or Instructors

• **Expert Learners, or Instructors** included directly observing instructors Ms. Courtney Siewert, ELL teacher at the West Junior Middle School and Jan Van Lengen-Taylor at the Adult Learning Center. They are also considered "experts", and are described in more detail in the next section.

Experts

While the core members of the team are doctoral students studying course evaluation under an expert in that field, none of us are TESOL specialists. We therefore asked the following TESOL experts to aid us in evaluating pedagogical aspects of the program.

 Dr. Viktoria Driagina-Hasko, Assistant Professor, Department of Language and Literacy Education, The University of Georgia. Dr. Driagina-Hasko is an Assistant Professor at the University of Georgia's Department of Language and Literacy Education. Her research interests are the study of second/foreign language acquisition, methods of language teaching, bi/multilingualism, language and cognition, and computer-assisted language education, making her particularly suited to this evaluation.

- Jeanne Van Lengen-Taylor, Teacher, Douglas Adult Learning Center, Columbia, Missouri. Jeanne Van Lengen-Taylor is a GED and literacy enrichment instructor at Columbia's Adult Learning Center. She has allowed two of her students to used the product in her class, observed their use and obtained feedback pertinent to their progress.
- Courtney Siewert, ELL Teacher, West Junior Middle School, Columbia, Missouri. Courtney Siewert is a teacher at West Junior High School in Columbia, Missouri. Ms. Siewert is a middle-school English Language Learning (ELL) teacher who has used the product in her classroom, and observed its use by students.

Instrumentation

In order to accomplish the goals of this evaluation, triangulation was following with respect to methods and instruments. The following instruments were used to ensure the highest reliability and validity of the evaluation process.

1. Questionnaire for Expert reviewers and Expert Learners (Perceived effectiveness)

<u>Procedure 1</u> - Instructors/experts at the CAALC and UGA were sent an email introducing them to the evaluation team and the software and instructions for completing the questionnaire (see Appendix II). The questionnaire was attached to the email. The expert reviewed the software provided via a web address in the introduction and responded with the completed questionnaire via email.

<u>Procedure 2</u> – Due to the fact that there were no focus groups, interviews were used in its place. Since only one expert learner (instructor) was participating at the young learner level, a questionnaire was not needed to inform the focus group, and a semi-structured interview using the questionnaire and focus group questions was utilized.

2. Pre-Post test for students (Learning effectiveness)

<u>Procedure for adult learners</u> – Volunteers were solicited to complete the evaluation. The learners that were interested were briefed about the e-learning product and the evaluation exercise by their instructor before the evaluator arrived. On arrival, the evaluator discussed with the learners what they understood was their role in the evaluation exercise, emphasizing that they (the learners) were not being evaluated, but that the focus was on their evaluations of the e-learning product. Agreement on this was sought and the pre/post tests (see Appendix III) were administered and timed.

<u>Procedure for young learners</u> - The entire class of 12 was given the pre-test; however, due to difficulties mentioned in the methods section, only one student was given the post-test.

3. Learner focus group guidelines

<u>Procedure for adult learners</u> – After the adult volunteer completed the post-test, the evaluator guided by the focus group guidelines (see Appendix IV), discussed with the volunteer their experiences whilst using the e-learning product. The time of the discussion was limited to twenty minutes.

<u>Procedure for young learners</u> – Since there was only one young learner who participated in the use of the software (see methods section for details), a focus group was not used. Observation and an interview with the student and instructor was used in its place.

Limitations

Due to the difficulties described in the methods section, this impacted this evaluation's methodology (which included sample size, participants, instrumentation used, and implementation time). Because of these factors, this evaluation has several limitations:

- **Sample size.** The young learner and adult learner participants were few in number (one and two, respectively).
- **Participants.** Only two locations were used: CAALC and Columbia School District CLL classroom, both located in Columbia, Missouri.
- **Instrumentation.** Instrumentation was different among different groups (questionnaire versus interview). The pre- and post-tests were delivered very close together.
- **Time implemented.** Students and Expert Learners had little time to spend with the software (approximately two weeks). This allows for only more shallow feedback as well as little time to show learning gains.

The overall impact of these limitations is that the generalizability of the effectiveness data has been decreased. Due to time limitations, restrictions, delay due to getting approval and installed in classrooms, the ability to generalize and create meaningful information from the effectiveness data was greatly minimized.

However, although the effectiveness data may not provide enough specific information to generalize learning effectiveness beyond the contexts in which the evaluation was conducted, the process of performing the evaluation did yield valuable information.

Data Analysis

Expert reviewers

Courtney Siewert

The expert learner interview (performed with Courtney Siewert) was conducted face to face with notes taken by the interviewer. The data was then grouped according to the three decisions: 1) support for implementation, 2) usability and user experience, and 3) learning effectiveness.

Jeanne Van Lengen-Taylor

Jeanne completed an expert review questionnaire. Her findings are as follows:

Coding based on Decisions	Expert Responses
Supports for implementation	 Lesson pace was good and interesting
	 Record and playback options would provide additional value for the tool
Learner experiences	 The Lesson should also provide information on abstract nouns
	 I liked the multimedia program
	 the lesson and multimedia was very suitable, very applicable and very appropriate to Adult ESL learners
	 the level of difficulty was very appropriate for the Adult ESL learner
Learning effectiveness	 Agreed that participants learned what a noun and a sentence is in Lesson 1
	 Strongly agreed that participants learned that parts of a story and what a proper and common noun are in Lesson 1
	 Multimedia information was accurate and useful
	 Activities following the reading supported the reading objectives
	 Feedback in the multimedia was clear

Overall Jeanne was very satisfied with the tool awarding it a 4 out of 5 points on a rating scale.

Young learners

As stated previously, there was only one young learner completed both the pre- and post-test. Vocabulary seemed easy for most of the 12 students during the pre-test, they struggled with noun and grammar practice, and performed quite varied in the writing practice. Little improvement was shown for the one learner between pre- and post-test, but that is not surprising given the length of time and limited duration (45 minutes) he spent on the program.

Pre and Post Test

Participant A

Pre-Test			Post-Test			
Type of Practice	Question	Result	Type of Practice	Question	Result	
	1	\checkmark		1	\checkmark	
Vocabulary	2	\checkmark	Vocabulary	2		
	3	\checkmark		3		
	4	X		4	X	
	5	X		5	X	
	6	X		6	X	
Noun Practice	7	X	Noun Practice	7	X	
	8	X		8	X	
	9	X		9	X	
	10	X		10	X	
	11	11	X			
Overse Presties	12	X	Cremmer Dresties	12	X	
Grammar Practice	13	X	Grammar Practice	13	X	
	14	X		14	X	
	15	X		15	X	
Writing Practice	Only two sentences, not grammatically correct, but describe the dog and the man. Slightly disjointed		Writing Practice	Not much ch the first; thre disjointed se merely descr picture	e ntences	

Observation and Interview

Observation was conduction of the young learner while he was using the program. Notes were taken regarding the observation and grouped according to 1) support for implementation, 2) usability and user experience, and 3) learning effectiveness.

A short interview was conducted with the student and the teacher to obtain any thoughts from the student on the program. His comments were also grouped into the three categories mentioned above.

Adult learners

There were two sets of data for the adult learners, the pre and post tests and the focus group discussion. Two adults whose first language is Spanish, took the pre-test but only one completed the post-test and the focus group discussion. This challenge was created by inclement weather as cited in the limitations. Below is a table illustrating the results of the pre and post test for both students.

Pre and Post Test

Participant A

Participant A was concerned that the knowledge she needed to answer the noun practice was lacking.

Pre-Test		Post-Test			
Type of Practice	Question	Result	Type of Practice	Question	F
	1		Vocabulary	1	
Vocabulary	2	\checkmark		2	•
- -	3	\checkmark		3	
	4	\checkmark	Noun Practice	4	
	5			5	
	6	X		6	
Noun Practice	7	X		7	
	8	X		8	
	9	X		9	

	10		Grammar Practice	10	
Grammar Practice	11	~		11	X
	12	~		12	
	13	~		13	_
	14			14	
	15	\checkmark		15	
Writing Practice	Spelling errors, described the dogs bone as a cracker		Writing Practice	One spelling error, much more cohesiv writing	

Participant B

Participant B felt uncomfortable answering the writing practice.

Pre-Test		Post-Test – Not completed			
Type of Practice	Question	Result	Type of Practice	Question	Result
	1			1	
Vocabulary	2		Vocabulary	2	
	3			3	
	4			4	
	5	X		5	
	6			6	
Noun Practice	7	X	Noun Practice	7	
	8			8	
	9			9	
	10			10	
	11			11	
	12			12	
Grammar Practice	13		Grammar Practice	13	
	14			14	
	15			15	
Writing Practice	Participant di understand tl exercise and two separate descriptions pictures	he provided	Writing Practice		

Participant A seemed to display vast improvements in the Noun and Writing practice. She seemed to have digressed in the Vocabulary and grammar practices.

Focus Group Interview

Participant A took approximately 15 minutes to describe and demonstrate her experiences with the elearning product. Her responses were as follows:

Coding	Participant Responses
Supports for implementation	 I used the translation tool sometimes
Learner experiences	The colors were goodI liked the software very much
	 I liked the stories; they are the same from my country although the Pizza Man was not a story I knew
	 Would not change anything
Learning effectiveness	 Would be beneficial to the rest of the class i.e. many Korean students in class Good for my listening and reading skills
	 Good grammar tools
	 Found the software appropriate for my level
	 The Vocabulary helped with my English a lot
	 Reading was good but vocabulary was better
	 Spelling and grammar was better
	 Being able to draw a relationship between the errors I made and what I remembered helped
	 Software made me aware of my typing level; needed to be more careful about what I typed
	 The practicing reinforced the work
Errors	 Good for practicing pronunciation which is one of the major focuses of the class – the class is at a higher level than the other classes being offered There was an incorrect solution to one question

Findings

The findings of the evaluation are reported below with respect to the primary decisions that need to be made: 1) supports for implementation, 2) usability and learner experience, and 3) learning effectiveness.

Supports for Implementation

Favorable Elements

- The texts used for the lessons are authentic, age-appropriate, and engaging. The program also introduces the learners to a variety of topics. Dr. Driagina-Hasko also pointed out that the rate of speech in the recordings is natural, which is important for developing ESL students' listening comprehension skills.
- Teachers liked the addition of the workbook and the brief scope and sequence provided on the website

Concerns and suggestions

- The experts had difficulty installing the program. Having the ability to easily install without errors or confusion would be useful. (Note, however, that installation problems occurred most often with downloaded versions of the software. Specifically, the downloaded file must be placed on the root of the C: drive for installation to succeed. These problems may not be an issue for installations from the CD, but this issue should be addressed should distribution via file download become an option in the future.)
- Teachers wanted to know specific information regarding the program; it was difficult to place students appropriately in the program or use it effectively right away. They wished there was an in-depth teacher guide for the program.
- Teachers had difficulty knowing where to start students in the program, some were more advanced than first lesson, some were not ready. They wished it was leveled, or at least had a leveling test at the start of the program to place students. One teacher noted,

"From the description of the program it was difficult for me to pair who was really ready to use the program with the program itself. I thought it would have more leveling and allow a larger range of students to use the program, but it was too specific for me."

Usability and Learning Experience

Favorable Elements

- The music, sound effects, and design are attractive enough to engage younger children.
- Experts report that the program is very similar to other low-cost programs on the market, but experts report it lacks features of larger-scale, commercial programs.

Concerns and Suggestions

- Dr. Driagina-Hasko noticed "a serious disconnect" between the level of complexity in the language used for instructions and explanations, and that used in the exercises themselves. Complex meta-language is used in the instruction, yet vocabulary exercises tend to use very easy words such as "grandmother" or "beautiful." To solve this issue, the level of the vocabulary used in program instructions should be comparable to that used in the exercises. New words to be used in the instructions could be incorporated into the exercises for learning.
- Dr. Driagina-Hasko commented that meta-linguistic explanations (explanations of grammar, narrative construction, etc.) lack depth. The program should give contrasting words as an aid to learning phonetics. She recommends using rhymes, riddles, chants, etc., to illustrate such contrasts. Integrating a recording program to record students' pronunciation of sounds in context, and comparison to contextualized recordings of native speakers would be helpful. Narrative structure is provided but there is no related explanation. More detailed information about the narrative phrases is needed.
- There were problems installing the software product.
- When teachers printed out reports, the Roman characters were substituted with symbols
- Students would jump around in program between lessons or proceed on even if they did not get anything correct. A teacher stated,

"I don't know if it's worth their time spending using the program because of their lowered interest, (lack of utilizing their background knowledge) and the fact that if I'm not watching them they can skip around to any lesson they want to."

• While it may be engaging for younger children, it was not very engaging for middle school students. One of the expert instructors noted,

"The buttons are ok to show they are wrong, but then it becomes 'I just push on whatever and don't necessarily need to attend to what I'm doing.' Again, if it somehow could lock them out if they get so many wrong, maybe they'd be more focused."

Learning Effectiveness

Favorable Elements

- Dr. Driagina-Hasko commented that the program introduces the learners to a variety of topics. Dr. Driagina-Hasko also pointed out that the rate of speech in the recordings is natural, which is important for developing ESL students' listening comprehension skills.
- Experts noted the software would be great for more western-oriented cultures, such as Hispanics or Europeans.
- The software was noted as being a great idea for adults who want to read those stories to their children.

Concerns and Suggestions

- There are several issues related to methodology that Dr. Driagina-Hasko singled out as areas where the quality of the program could be enhanced. First, she noted that transcripts should not be provided right away when the students are doing listening comprehension, and that scaffolding be performed to a greater extent: "It is important that ESL students are exposed to listening comprehension activities that do not provide transcripts right away. To scaffold listening activities, I would recommend including pre-reading activities (activating the appropriate schema or background knowledge), and then scanning (listening for details) and skimming (listening for the main idea) activities, followed by in-depth listening and comprehension questions (comprehension of the text, not just individual words!)." Also, "Pictures that already exist would be perfect scaffolds. For translations, I would recommend also providing synonyms and thesaurus-like explanations before resorting to students' native languages."
- Moreover, Dr. Driagina-Hasko mentioned that it is important to allow learners to listen multiple times and attempt to comprehend the text before the transcript is given to them. She recommended providing synonyms and thesaurus-like explanations before resorting to students' native languages as well.
- Listening to recordings while reading a transcript would help learners to focus on the pronunciation of sentences and phrases, rather than isolated words. The program could be modified to allow the student to hear pronunciation at the word-group level, for example by breaking up sentences. Dr. Driagina-Hasko mentioned that students should be asked to construct sentences or even paragraphs, and to record themselves doing that, rather than recording isolated words. "The software should push students to go beyond word-level, and it does not. That is why as far as the production activities are

concerned, this software is fairly disappointing," she reported. It is desirable that students retell a story or to write a similar story (or alternative ending) and record that. To solve this issue, making a database to save the students' responses and integrating a recording program in the module would be helpful. "According to the National Standards (ACTFL guidelines), students of intermediate level of proficiency should be able to speak in paragraphs, so it is very important that there are activities that require extended communicative production."

- Vocabulary is provided in mixed tense; sometimes the present tense, sometimes in the past. There
 should be an additional explanation if the program is providing vocabulary in different tenses.
 Moreover, some explanations are incorrect. A thorough check should be performed on all items to
 ensure correctness (e.g. "bird" is supposed to be classified as a "thing").
- Dr. Driagina-Hasko pointed out that the distracters (incorrect answers) in quizzes are excessively obvious, and therefore this feature lacks validity. To reiterate, students should be asked to use vocabulary in context (offer their own guesses or write their own sentences).
- It was difficult for students from non-Western backgrounds to utilize their background knowledge in understanding the more Western-oriented stories. For example, one expert noted,

"Culturally it is the white child running through forest versus the entire family living together. A child might think, why go visit grandmother? I don't think it fits them culturally. They can't use their background knowledge to help understand English in context. For example, some of them have lived in camps almost their entire life. It just adds on another layer or barrier to inhibit them from learning English content."

• Due to the fact that users can jump around, they can jump into lessons that they are not ready for. Additionally, some learners need restrictions (like not allowing them to move on to the next level unless they get correct answers) in order to more properly facilitate motivation and a feeling of challenge. This is especially true of middle school students. For example,

"Often, the students are just kind of guessing at the answers. This is not really rare for middle schoolers necessarily, but the important thing to note is that they don't have any consequences for getting wrong answers. For example, they're not locked out of progressing any further and have to start over if they get so many wrong. There's just no incentive for them to get correct answers. There's no motivation for "how can I get this correct so I can get to the next screen". Like in Rosetta Stone, if you miss so many you don't progress further."

Recommendations and Discussion

The evaluation team has recommendations for two major areas: the supports for the implementation of the evaluation i.e. evaluation planning and the result of the effectiveness evaluation.

Supports for Evaluation Implementation

The supports for implementation come primarily from the learner experiences used in the classrooms; the reasons behind these results can be found in the Findings section.

- 1. Preparing the product for evaluation-Part of the preparation of the product for evaluation should include any
 - installation guides,
 - more in-depth teacher's manual
 - Fix issues in compatibility with printing and
 - bug lists/troubleshooting guides
- 2. The inclusion of such documentation with the product for evaluation can reduce the risk of time lost to faulty installations.
- 3. Investigation of appropriate incentives-Participation incentives needed to be more attractive to gain the level of participation needed to effectively execute an effectiveness evaluation. The appropriate incentive to gain participation can be difficult to identify and more investigations needed to be completed on the evaluative audience to successfully accomplish this task.
- 4. Contingency planning-The evaluation team needed to also place certain contingencies in place which will reduce the level of risk experienced. This skill is one that is achieved with experience. The evaluation team consists of novice evaluators who would use this experience to guide future evaluations.

Usability and Learner Experience

- 1. Learners as well as one expert found the product to be appropriate and enjoyable.
- 2. Technical problems with installation need to be corrected.

Learning Effectiveness

- 1. **Appropriateness for audience** The adult ESL learners and their instructor (expert) found that the product was appropriate and effective (judging by the pre and post tests). The instructor has since emailed stating that other students under her care are using the product even though the participants' native language is not accommodated by the translator.
- 2. **Method of delivery** CD/download, bundling language updates with download. This ease of access would encourage a more rigid evaluation of the marketability of the product. Presentation and packaging needs to be heavily considered to draw the specified audience.
- 3. Navigation/User control within the software reduced (Pre-test and Post-test within software to guide students learning) To help teachers place students, allow for a student test at the beginning of the program which places students (or lets teachers know they are not ready for the program) This is also very important for students where their reading skills are not at the same level as their speaking skills. Both skill levels should be tested to appropriate place the students.
- 4. Level/Amount of Knowledge attained It is difficult to clearly measure the amount of knowledge attained but based on the Adult learners experiences, their skill has improved as seen via the pre and post tests.
- 5. Teacher support manual for guiding the use of the software. The importance of a sufficient instructor manual is clearly identified via the numerous challenges encountered. It is important for instructors to not only know what is required for the product to work well for the students but its also good to assist the instructors in identifying students who may not be suitable candidates for the product. The young learners, some of whom were also refugees, may have additional challenges that can not be solved with just the assistance of learning English. Their previous circumstances may suggest that there are additional challenges that need to either be accommodated or guided towards an improved solution.

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Appendix I - E-learning program screen shots



Figure 1a Spelling Test



Figure 1b Pronunciation Page



Figure 1c Grammar lesson

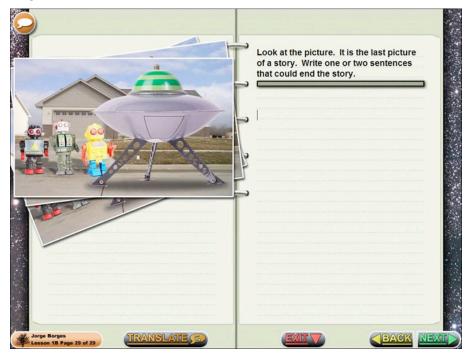


Figure 1d Writing Activity



Figure 1e Review of lesson

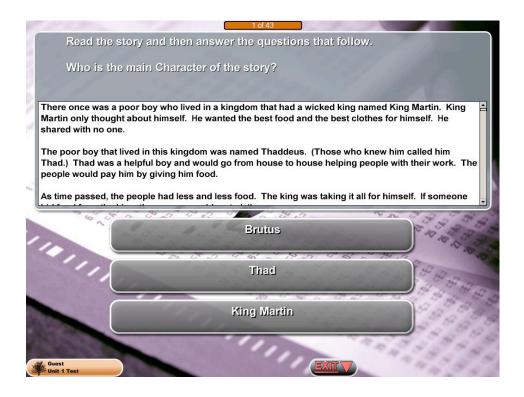


Figure 1f Unit assessment

Appendix II – Expert Review

Expert Review Grade 3 -6

Introduction

OneTree Learning (OTL) supports learners learning English as a second language (ESL). The company provides not only English learning services, but also acts as a guide to help learners become more prepared for academic classrooms.

Language Arts for ESOL is a software product which helps ESL learners gain academic vocabulary in language arts in grades 3 through 6. OTL's Language Arts for ESOL can be used either as a dedicated ESL curriculum, or as a supplementary program to assist ESL learners within existing mainstream classes. The program uses stories and games to keep learners interested and motivated. Native language support helps learners follow the lessons. The program's methodology includes a blend of whole-language activities as well as skills such as phonemic awareness, grammar, and punctuation.

Instructions

There are six (6) Units with three (3) lessons in each Unit. Please review the multimedia and workbook material for the three following lessons, Unit 1 Lesson 1, Unit 3 Lesson 9 and Unit 5 Lesson 14.

INSTRUCTIONS

In Lesson 1, participants will learn	1	2	3	4	5
What is a noun?					
What is a sentence?					
Parts of a Story: Introduction, Body, and Conclusion?					
Proper and Common Nouns?					

Please add anything else you would like to tell us about the learning objectives:

1. How accurate was the information in both the multimedia and the workbook?

INSTRUCTIONS

How consistent was the information in both the multimedia and the workbook?				
	1 2 3 4 5			
Is the content of the Lesson applicable to Grade 3-6 learners?				

Is the content of the multimedia suitable to Grade 3-6 learners?

Is the feedback in the multimedia clear?

Is the feedback in the multimedia appropriate for the learner?

Is the pace of the lesson appropriate for a Grade 3-6 learner?

Is the level of difficulty appropriate for a Grade 3 learner?

On a scale of 1 - 5 where 1 is the lowest grade and 5 is the highest grade, what overall grade would you give this E-Learning product

Comments

Expert Review – Adult ESL Learners

Introduction

OneTree Learning (OTL) supports learners learning English as a second language (ESL). The company provides not only English learning services, but also acts as a guide to help learners become more prepared for academic classrooms.

Language Arts for ESOL is a software product which helps ESL learners gain academic vocabulary in language arts in grades 3 through 6. OTL's Language Arts for ESOL can be used either as a dedicated ESL curriculum, or as a supplementary program to assist ESL learners within existing mainstream classes. The program uses stories and games to keep learners interested and motivated. Native language support helps learners follow the lessons. The program's methodology includes a blend of whole-language activities as well as skills such as phonemic awareness, grammar, and punctuation.

Audience

Although this e-learning product has been produced for Grade 3-6 learners, it has also been used with Adult ESL learners. This review specifically concentrates on the Adult ESL learner.

Instructions

There are six (6) Units with three (3) lessons in each Unit. Please review the multimedia and workbook material for the three following lessons, Unit 1 Lesson 1, Unit 3 Lesson 9 and Unit 5 Lesson 14.

INSTRUCTIONS

In Lesson 1, participants will learn	1	2	3	4	5
What is a noun?					
What is a sentence?					
Parts of a Story: Introduction, Body, and Conclusion?					

Please add anything else you would like to tell us about the learning objectives:

How accurate was the information in both the multimedia and the workbook?

INSTRUCTIONS

H	How consistent was the information in both the multimedia and the workbook?				

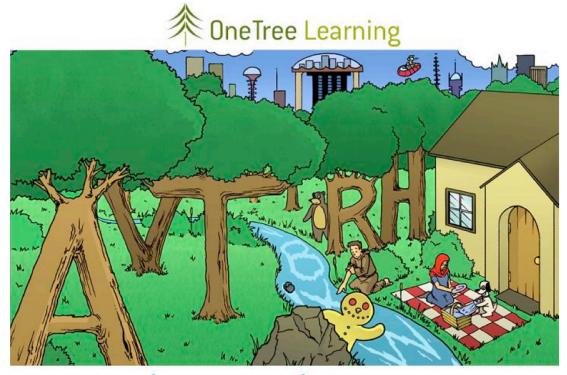
	1	2	3	4	5
Is the content of the Lesson applicable to Adult ESL learners?					
Is the content of the multimedia suitable to Adult ESL learners?					
Is the feedback in the multimedia clear?					
Is the feedback in the multimedia appropriate for the learner?					
Is the pace of the lesson appropriate for a Adult ESL learner?					
Is the level of difficulty appropriate for a Adult ESL learner?					
On a scale of $1-5$ where 1 is the lowest grade and 5 is the highest grade, what overall grade would you give this E-Learning product					

Comments

Appendix III - User Pre-Test

Pretest

Appendix V - Learner Pre-test



Language Arts for ESOL

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User Pre-test Knowledge Assessment (30-60 minutes)

Learner workbook Volume One, Unit 1, Lesson 1 Vocabulary Practice - 5, 10, 7 Noun Practice - 1, 3, 5, 7, 4, 8 Grammar Practice - 1, 3, 5, 7, 4, 6 Writing Practice - 1

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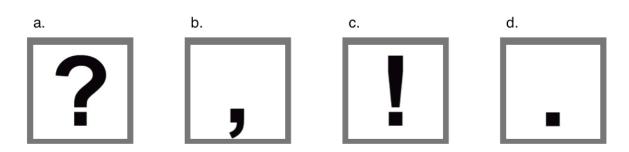
Name	Date

Vocabulary Practice

Directions: Read each question and circle the correct answer.

1. Who is grandma	?		
a.	b.	c.	d.

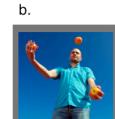
2. What does "ask" mean?



3. Which one is jumping?

a.









d.

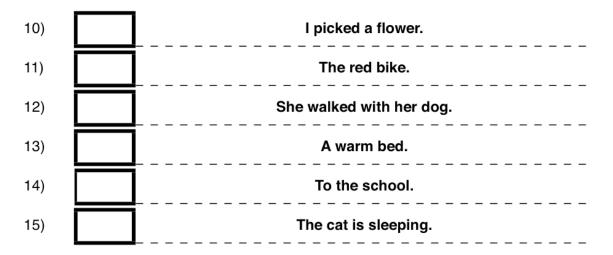
Noun Practice

Directions: Look at the list of nouns. Do you know which noun is a *common* or *proper* noun? Write "common" or "proper" in the box beside the word.

Pizza Hut	
boy	
city	
Florida	
Juanita	
ball	

Grammar Practice

Directions: Read each sentence. If the sentence is complete, write "C" in the blank. If the sentence is incomplete, write "I" in the blank.



Writing Practice *Directions:* Write the BEGINNING of your story using the two pictures below.





TEACHER ONLY: Approx time spent on test: _

Appendix IV - User Post-Test

Post-test

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Appendix VI - Learner Post-test

Language Arts for ESOL

1.086

User Post-test Knowledge Assessment (30-60 minutes)

Learner workbook Volume One, Unit 1, Lesson 1 Vocabulary Practice - 5, 10, 7 Noun Practice - 1, 3, 5, 7, 4, 8 Grammar Practice - 1, 3, 5, 7, 4, 6 Writing Practice - 1

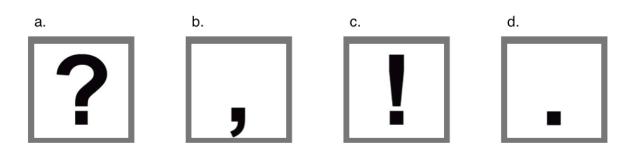
Name	Date

Vocabulary Practice

Directions: Read each question and circle the correct answer.

1. Who is grandma?			
a.	b.	c.	d.

2. What does "ask" mean?



3. Which one is jumping?

a.









d.

Post-test

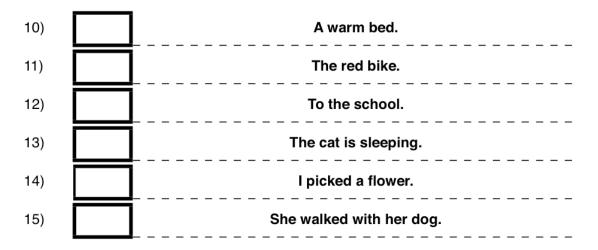
Noun Practice

Directions: Look at the list of nouns. Do you know which noun is a *common* or *proper* noun? Write "common" or "proper" in the box beside the word.

4)	Juanita	
5)	city	
6)	ball	
7)	boy	
8)	Florida	
9)	Pizza Hut	

Grammar Practice

Directions: Read each sentence. If the sentence is complete, write "C" in the blank. If the sentence is incomplete, write "I" in the blank.



50

Writing Practice *Directions:* Write the BEGINNING of your story using the two pictures below.





TEACHER ONLY: Approx time spent on test:		

Appendix V - Learner Focus Group Protocol

Focus Group Interview: Learners

Rationale for Questioning:

- Questions start generic and in the past, allowing instructors to recall use of the program and begin "reliving" use of the program.
- Questions them move to the more specific and to the present, with the final questions moving to the speculative and future
- Interviewer will facilitate and follow up on answers in order to facilitate more thick and rich descriptions of events, experiences, and perceptions.
- Interviewer may slightly adjust the language according to audience, but will still ask and facilitate each question

Materials:

- 1. recording material
- 2. protocol
- 3. if performing via distance, appropriate software

Introductions:

- Introduce self to focus group
- Describe purpose of this focus group:
 - how this focus group is to understand their experiences and perceptions on using the product
 - feel free to use as much detail as they feel necessary
 - emphasize that we want them to feel free to share whatever experiences and perceptions they had in using the program, no matter if it is positive or negative
 - o confidentiality will be maintained; no names or audio will be given to makers of product
 - recordings will be made so we can make sure we get your comments and suggestions
 - focus group should last between 60-90 minutes

Questions:

focus: (1) background information

1. Describe how you have used Language Arts for ESOL.

focus: (1) perceptions and experiences using the product, (2) enjoyment using product, (3) immediate learning

effectiveness, (4) learning gain perceived

2. Describe what you enjoy about using this program. How does it help you? Try to give an example.

- Describe what you do not enjoy about using this program, or things you find frustrating. Try to give an example.
- 4. How do you think it helps you with school and English in general? Describe an example.
- 5. Which lessons or parts of the program to you find very useful? (Examples)
- 6. Which lessons or parts of the program do you not find useful? (Examples)

focus: (1) usability, (2) UX

- Describe your impressions of the program's interface. Describe some of your thoughts you may have when using the program.
- focus: (1) perceptions and experiences using the product, (2) enjoyment using product, (3) immediate learning effectiveness, (4) learning gain perceived

8. If you had the choice, would you continue using this product? Explain your reasoning.

- 9. What would you change in the program to help you enjoy the product more?
- 10. What would you change in the program to help you learn better?
- 11. Is there anything you wanted to talk about the program that I didn't ask?