

**Instructional Product Evaluation Results**

**Infuse Us:**

**Finance for the High School Grad**

**EDCI 577 – 007**

**Purdue LDT**

**Fall 2016**

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**October 9, 2016**

**Infuse Us Consultants Evaluation of  
'Finance for the High School Grad'**

**Created for:**

**Allen High School Life Relevance Initiative**

**AHS Vision 2030**

**Executive Summary**

The desperate need of financial training for our high school graduates is a known issue, yet most schools are so strapped by curriculum timelines that there is little opportunity to spend meaningful time in this critical realm.

Infuse Us has brought the industry an online, outside of the classroom opportunity to educate our high school juniors and seniors on the basics of financial management by building on a key concept from their mathematics courses, exponential functions. The short course is 'Finance for the High School Grad' and is the subject of this training evaluation. The course is designed to be completed in an online environment with an extensive array of learning objectives to include equipping the students for financial encounters in their life ahead.

The purpose of this evaluation is to determine the impact of the course on the target audience (high school juniors and seniors) in the areas of engagement and knowledge retention. Though students and guardians will be interested in the output of the evaluation related to scores for assessments for the course, the primary stakeholders of the evaluation data are the Math instructors and school administration of Allen High School. They will use the results to better optimize the course in pursuit of the learning objectives.

This evaluation was performed during the Spring 2016 Semester at Allen High School in Allen, Texas. The study involved 1,492 juniors, 742 seniors, and 19 Precalculus instructors. Infuse Us presented findings to the Allen Vision 2030 team on June 8<sup>th</sup>. The major metric highlights are as follows:

- 45% average score improvement from pre-test (37.75%) to post-test (83%).
- Average ranking by students of 'quite' impactful or better for all Level 3 (Transfer of Learning) survey questions regarding influence of finance training on their current thoughts.
- 80+% accuracy for the students on 3 finance-related questions on the End of Course exam.
- 65% of the students rated course material engagement a 4 (Quite Impactful) or higher on a 5 level scale.

The three greatest successes gleaned from the evaluation data are:

- Significant increase in financial application skills over the course of the finance short course compared with their knowledge level in the pre-course survey.
- Documented skill/knowledge retention impact from the end of the short course in April to the End of Course exam during the last week of May.
- Student reported confirmation of high levels of engagement through course materials as well as reports of heightened awareness of financial aspect in the students' daily interactions.

Overall the rollout of this course exceeded all expectations by producing significant knowledge acquisition in the students while requiring very little classroom time. Details of the study follow. Please feel free to contact any member of the Infuse Us staff regarding questions related to either the course or the evaluation.

Thank you for allowing Infuse Us to join Allen High School in this critical endeavor.

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## Evaluation Overview, Goals, and Scope

### Target Course Description

A major challenge of modern American high school mathematics instruction is providing sufficient extensions from the conceptual teaching to develop mastery of application. ‘Finance for the High School Grad’ is a relevant, online application extension of a common high school mathematics unit, exponential functions.

This lesson incorporates basic budget analysis into an extension opportunity based on real-life application of exponential functions. The short course is built in two venues with matching content. One using the PBS Learning Media (PBS Learning Media, n.d.) Lesson Design tool, and one housed on the Infuse Us website. (InfuseUs, n.d.).

The short course consists of numerous media selections:

- Two slideshows addressing budgeting basics,
- An online budgeting game,
- A guided practice on investment calculations,
- A set of practice problems about investment calculations,
- A practice quiz using investment knowledge and budgeting skills,
- An online test covering investment calculation skills,
- An artifact production exercise using the investment knowledge and skills acquired in this lesson.

The finance lesson is designed to be fully completed outside of the classroom in an online environment following completion of the exponential functions section of an Algebra II or Precalculus high school mathematics course. There are numerous self-monitoring formative assessment opportunities for the students as they traverse this self-paced short course, including an online test which responds to incorrect answers with a ‘retry’ option that is a form of the ‘hint’ that Horton suggests as constructive feedback (Horton, 2006, p. 269) for online courses.

Acquiring investment calculation skills is the overarching objective with budgeting basics providing a supporting context. The ‘Finance for the High School Grad’ learning objectives are:

- Create Exponential Functions to represent any investment opportunity.
- Compare multiple investments containing varying rates, terms and compounding methods, and evaluate the options relative to maximum growth.
- Research and construct a model of a real-life investment scenario and discern a reasonable solution. (Final assessment artifact submission.)
- Create a viable, balanced projected personal budget based on a mix of given criteria, investment options, and projected life interests.
- Equip for life. Instill students with the knowledge, skills, and tools to effectively analyze financial models and address finance-based situations that they encounter throughout their lives.

For reference, Figure 1 is a screenshot of the scrolling page built on the Infuse Us website.

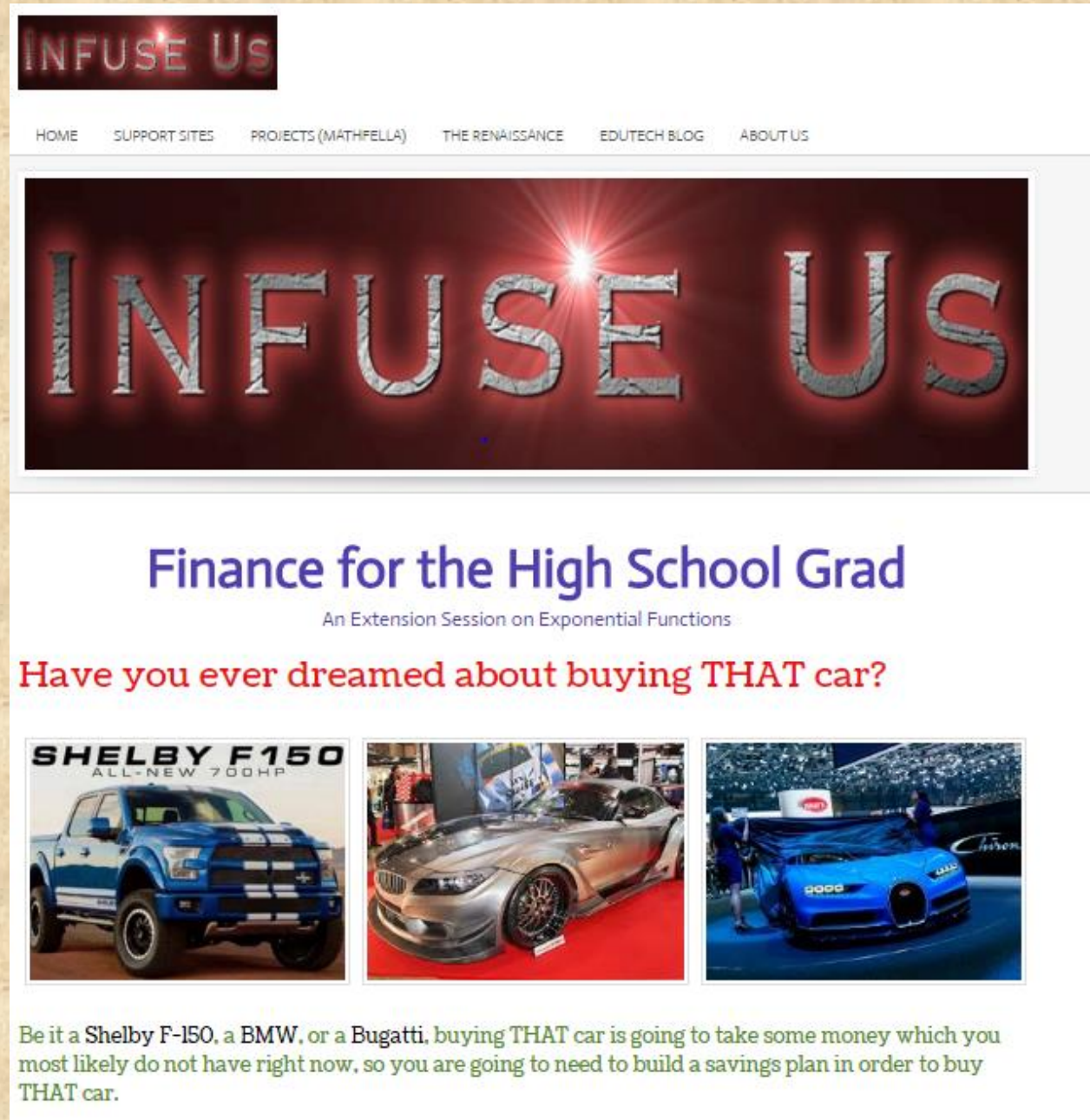


Figure 1. Screenshot of Infuse Us 'Finance for the High School Grad' lesson scroll page.



### **Target Audience Description**

The primary target audience for the finance short course is all 11<sup>th</sup> and 12<sup>th</sup> grade high school students that have successfully completed an Algebra I mathematics course and are now enrolled in a more advanced mathematics course that explores exponential functions. This self-paced outside-of-class unit is designed to be assigned following completion of the unit covering exponential functions. This particular evaluation involves 2,234 juniors and seniors enrolled in the precalculus course at Allen High School.

Personal finance management is an important concept for all high school graduates to master, yet curricular time constraints in high school often result in little to no time devoted to this topic. All high school graduates require the ability to contribute to a financial discussion involving investments and budgeting estimation.

The reporting audience (stakeholders) will include instructor and administration with a focus on the Kirkpatrick & Kirkpatrick (2006) Level 1 results and the progress from pre-test to post-test. Both instructor and administration will be eager to explore opportunities to adjust the instruction and materials in order to reap higher gains in skills and knowledge acquisition by the high school students under the instructor's tutelage. Once these levels are secured, their analysis will move to the Level 3 and Level 4 evaluations which reflect impact to the student's thought process going forward.

Students and their guardians will also be interested in the results, though primarily just the post-test results as these will represent the summative grade for this unit.

### **Evaluation Goals and Scope**

The purpose of this evaluation is to determine the impact of the course on the target audience (high school juniors and seniors) in the areas of engagement and retention. Though students and guardians will be interested in the output of the evaluation related to scores for assessments for the course, the primary audience of the evaluation data are the precalculus instructors and school administration of Allen High School. They will use the results to better optimize the course in pursuit of the learning objectives.

## Project Plan and Timeline

The finance short course was initiated in the Allen High School precalculus courses beginning April 19<sup>th</sup>. Infuse Us presented the results to the Allen Vision 2030 team on June 8<sup>th</sup>. The detailed timeline for the project is available in Appendix H. Though a detailed description of the process follows in the next section, following are brief discussions of the artifacts used for the evaluation and the rationale for selection.

- Level 1 – Engagement survey administered the day that students begin the finance short course. This will gauge student interest level. This survey was deliberately designed to gather data on targeted perceptions. A great lesson cannot overcome a lack of student involvement.
- Level 2 – Pre-test and Post-test are administered the day that students begin the finance short course and the day that they complete the finance short course, respectively. These tests are designed to provide objective starting and ending point data in regard to student knowledge and skill levels. This provides objective evidence as to the success of the course in the area of knowledge transfer.
- Level 3 – Learner Perspective survey administered two weeks following the course. This allows time for students to experience the impact of the finance short course material on their daily lives. This subjective survey requests that the students reflect on the impact of the course on their daily thoughts, actions, transactions, and operation.
- Level 4 – Four questions on the end of course exam, which is administered more than a month following completion of the finance short course, provides insight in regard to the longer term retention of knowledge and skills. These provide quantifiable evidence as to the student ability to now process a financially based calculation.

## Evaluation Process, Instruments, and Results

The foundational tools used to evaluate the impact of this finance lesson are based on the Kirkpatrick's 4 Levels of Evaluation (Kirkpatrick & Kirkpatrick, 2006). The full process timeline is delineated in Appendix H. Following is detail on the evaluation deployment.

### Level 1 Evaluation

Artifact: Engagement Survey (See Appendix A)

Process: In order to capture engagement levels with the online course experience still fresh on the minds of the students, the instructors administered the survey during class on the day following the day that the finance study was assigned to be completed. The surveys were provided to Infuse Us for processing. Scores were captured at the student-question level with the ability to aggregate all the way up to an average score for total quizzes taken.



The Level 1 Engagement Survey gathered data through 6 questions based on student opinion of the finance short course and materials ranked on a 5 point Likert-type scale ranging from 'Not' to 'Very.' Considering the participants in this survey (high school students in a mathematics course) an average score above 3.5 out of 5 was considered a success.

Results: Learning comes with engagement which makes the results of this deliberately worded survey important to the instructors and administrators. They know that even with the most clearly worded explanations, if teenagers do not find the information engaging, optimal learning will not occur. The 5 level scale yielded an average score of 4.30 across the 6 questions, a range of 3.9 to 4.8 at the question level. These are extremely high scores considering these are juniors and seniors in high school. The question with a score of 3.9 was related to student motivation to move from section to section. The instructors should review the material related to this topic in a search for opportunities to clarify the message on this particular concept.

### Level 2 Evaluation

Artifact: Pre-test administered in class on the day following completion of the Exponential Functions section. (See Appendix B for the pre-test and Appendix C for the answer key.)

Artifact: Post-test administered in class on the day following the day that the finance study was assigned to be completed. (See Appendix D for the post-test and Appendix E for the answer key.)

Process: There are two Level 2 evaluation products, a pre-test and a post-test, with 4 questions each. The content of the pre-test and post-test match very closely to allow for a valid comparison of the knowledge and skill acquisition progress made during the unit. Both tests consist of a single budget-focused question and three investment-related questions.

Instructors administered the pre-test upon completion of the Exponential Functions unit. The instructors scored their pre-test and provide the data at the student question level to Infuse Us. Scores of '0' on the pre-test, a benchmark, were not be unexpected as many students may be unable to make the bridge to application of exponential equations without further direction. These students represent a key demographic that will benefit the most from this lesson. Students scoring beyond 90% on the pre-test were encouraged to pursue an independent study of an investment topic in place of the online course.

Instructors administered the post-test during class on the day following the day that the finance study was assigned to be completed. The instructors scored their pre-test and provided the data at the student question level to Infuse Us. Scores on the post-test should exceed 75%. Students scoring below 75% were directed to instructor-designed intervention tools and may be subject to retesting. The instructors and administration will make the retest need determination. The survey responses and pre-/post-test performance of these students were analyzed by Infuse Us as a group to identify any elements of the study materials that may be hindering their progress.



The Level 2 test scoring included partial credit for accurate set-up if a final correct answer is not achieved. Though individual scores are available, the important viewing is done at various aggregation levels of various demographic breakouts. The initial view is the question-level differences between pre-test and post-test scores. Instructors and administration will then scour these scores for signs of opportunities to improve materials or instruction.

Results: Capturing the score improvement of students entering the course versus their exit abilities is of great interest to instructors and administrators alike. This direct, objective measurement provides immediate feedback regarding success while also providing data that may be scoured further at the learner level to identify reteach opportunities. The aggregate pre-test score was 37.75% and the aggregate post-test score was 83%. This 45% increase represents a success regarding this metric. The students and parents will also be very interested in the post-test scores as those will be used to report on the student mastery levels in the form of grades for this element of the course.

### Level 3 Evaluation

Artifact: Learner Perspective Survey (See Appendix F.)

Process: Infuse Us created an electronic survey available to all students who completed the post-test. The instructor shared this link with their students during class two weeks following the completion of the post-test. After two weeks, Infuse Us shared the list of those that have not completed the survey with the instructor who then followed-up directly with those students.

Results: Level 3 evaluation addresses behavioral impact and were measured with 6 focused survey questions administered two weeks following the post-test as well as informal feedback from instructors regarding observed financially-impacting behavioral changes.

One of the primary goals of this short course is to heighten the awareness of upcoming high school graduates to the important of financial literacy, and a behavioral analysis two weeks following exposure provides a dependable gauge of how much their mindset has been altered. Level 3, or behavioral, evaluation determines the extent to which change in behavior occurs because of the training program. (Kirkpatrick & Kirkpatrick, 2006, p. 61) Having a growth mindset is a trending need in education this decade, and the ability to expand the student mindsets to consider financial issues is a significant step.

The student average rating was 4.32, with 4 representing 'quite' impactful. This suggests that overall the student perspective is that they were much more aware of finance impacts following completion of the course, which is one of the key objectives of the course.

## Level 4 Evaluation

Artifact: Finance Questions on Final Exam (See Appendix G.)

Process: In order to confirm longer term retention of skills and knowledge, Infuse Us provided the instructors with 4 multiple choice finance questions which represent the focus of the short course for them to include on their semester end of course exams. The instructors scored the exam questions and then shared the data with Infuse Us at the students-question level to allow for maximum manipulations of the data. Though not an ideal Level 4 Evaluation, this meets the goal of this particular focus as it documents a level of retention. The ideal Level 4 Evaluation would extend further into the student personal lives by documenting actual changes in their financial behaviors. I

Results: Level 4 evaluation occurred via questions on the end of course exam. These gauge the student retention of the finance lesson which represents their potential for making this knowledge a life skill.

The question with the lowest response rate was analyzed by the instructors and found to have language that would be confusing to their particular demographic based on how 'biweekly' is interpreted in the Allen, Texas area. 'Biweekly' is considered twice a week, not every two weeks. Eliminating the question in question, students scored an average of 80+% on the remaining three questions. This is a major success for an online short course injected as a much-needed extension to the core concepts.

## Data Collection and Analysis

The capturing of data and subsequent reporting will address two somewhat disparate audiences. On one end of the spectrum are the students and guardians who are focused on grades in the course. Consequently, they are only interested in the scores from the Level 2 post-test and the scores on the Level 4 Final Exam questions. At the other end of the spectrum are the Allen High School math instructors and administration. They are more interested in engagement levels and how much learning occurred. They will be most interested in the Level 1 engagement levels and the progress shown on the Level 2 pre-test to post-test scores. The Level 3 (behavioral impact) and Level 4 (Final Exam questions) data will also be of interest as these address the final objective of 'equipping for life'. The aggregate results for each question on each evaluative item will be available for analysis, as well as the conglomerate average.

The students and guardians will be receiving the score data directly from the instructors via the school grade reporting system. Aggregation of the data will be handled by Infuse Us. They will construct myriad views of the data as well as any special requests from Allen High School instructors or administration. Infuse Us will also make results available in a format that students or guardians may view, upon approved request. FERPA guidelines prevent widespread, unrequested sharing of the data and requests from non-district personnel to view the data will need to be processed according to Allen's school district guidelines. (Sample charts may be found in Appendix I.)



## Reporting

Level 1 results will be made available by question with the ability to aggregate responses by numerous demographics. Each question gauges the student engagement of different aspects of the training:

- Relevance of skills and knowledge acquired,
- Smoothness of lesson flow,
- Life-impact considerations,
- Motivation level of moving from section to section,
- Benefits of budgeting game to budgeting understanding,
- Willingness to take another similar online course.

Level 2 pre/post-test results will be made available at the question and aggregate levels.

Level 3 survey results will also be available at the question level and may also be disaggregated in regard to performance levels on both the post-test and end of course questions. This data is gathered directly from the students via electronic forms. The instructor will be engaged to share the link and follow-up with those students that didn't participate initially.

Level 4 end of course questions are designed to determine the retention level of the skills and knowledge delivered by the finance short course.

Infuse Us thanks the math instructors of Allen High School for the extra time that they dedicated to support the data gathered and sharing elements of this project. Their dedication and timeliness played a major role in the success realized by deployment of the finance short course.

### References

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## **Appendices**

Appendix A: Finance Short Course Engagement Evaluation Survey (Level 1)

Appendix B: Investment Calculation and Budgeting Pre-Test (Level 2)

Appendix C: Investment Calculation and Budgeting Pre-Test Key (Level 2)

Appendix D: Investment Calculation and Budgeting Post-Test (Level 2)

Appendix E: Investment Calculation and Budgeting Post-Test Key (Level 2)

Appendix F: Learner Perspective Survey (Level 3)

Appendix G: Financial Questions on Course Final Exam (Level 4)

Appendix H: Gantt Chart for Managing the Evaluation Process

Appendix I: 7 Sample of Reports Available to Support Analysis

## Appendix A

Level 1 Survey to determine student engagement levels of the concepts and finance short course materials.

**Finance for the High School Grad**

**Name:** \_\_\_\_\_

**Finance Short Course Engagement Evaluation Survey**

**Date:** \_\_\_\_\_

Directions: Read each question and circle the number of the ranking that best describes your opinion of the aspect of the finance short course addressed in the question. Scoring: 1 represents ‘Not’ impactful to your life while 5 represents ‘Very’ impactful to your life.

Q u e s t i o n	<h1>Engagement Questions</h1>	N o t	B a r e l y	S o m e w h a t	Q u i t e	V e r y
1	How relevant were the skills and knowledge targeted in the finance short course such as investment calculation, investment analysis, and budgeting?	1	2	3	4	5
2	How smoothly did the self-guided lesson flow through transitions from slideshow/game/practice/quiz/product?	1	2	3	4	5
3	How impactful will this information be to your life going forward?	1	2	3	4	5
4	How motivated were you in moving from section to section in order to discover the next bit of knowledge about investing or budgeting?	1	2	3	4	5
5	How beneficial was the budgeting game in regard to increasing your understanding of the impacts of choices when budgeting?	1	2	3	4	5
6	How willing would you be to complete a similar self-paced finance short course using the same format on another very relevant math concept?	1	2	3	4	5



## Appendix B

Level 2 Pre-test used to set benchmark and confirm student deficiencies.

**Finance for the High School Grad**

**Name:** \_\_\_\_\_

**Investment Calculation and Budgeting Pre-Test**

**Date:** \_\_\_\_\_

Directions: Use your background knowledge to best address the following challenges which represent the material that will be covered in this finance short course. You will be taking a similar test at the completion of the finance short course and will be self-evaluating your progress.

Show your work details.

1. You are earning \$3,000 per month at your first permanent job. Build your monthly budget based on the following criteria:

Savings (10% of earnings),

Income tax (15% of earnings),

Housing (20% of earnings),

Health/Life/Car Insurance (15% of earnings),

Digitals (5% of earnings),

Philanthropy (10% of earnings)

Food (5% of earnings)

Transportation (5% of earnings)

Other (remaining)

Personal Budget Item	Allocations
Savings	
Income Tax	
Housing	
Health/Life/Car Insurance	
Digitals	
Philanthropy	
Food	
Transportation	
Other	
Total	

2. If you invest \$15,000 at a 5.5% annual guaranteed rate compounded annually, how many years must you wait before you have \$25,000 in the account?

3. Which is the most productive \$4,000 investment for 8 years? 2.5% compounded quarterly or 3% compounded annually? Show details of your reasoning.

4. How much must you invest today at 4.6% compounded monthly in order to have \$20,000 in 15 years?



## Appendix C

Answer key for Appendix B.

**Finance for the High School Grad**

**Name:** \_\_\_\_\_

**Investment Calculation and Budgeting Pre-Test**

**Date:** \_\_\_\_\_

Directions: Use your background knowledge to best address the following challenges which represent the material that will be covered in this finance short course. You will be taking a similar test at the completion of the finance short course and will be self-evaluating your progress.

Show your work details.

1. You are earning \$3,000 per month at your first permanent job. Build your monthly budget based on the following criteria:

Savings (10% of earnings),

Income tax (15% of earnings),

Housing (20% of earnings),

Health/Life/Car Insurance (15% of earnings),

Digitals (5% of earnings),

Philanthropy (10% of earnings)

Food (5% of earnings)

Transportation (5% of earnings)

Other (remaining)

Personal Budget Item	Allocations
Savings	<b>\$300</b>
Income Tax	<b>\$450</b>
Housing	<b>\$600</b>
Health/Life/Car Insurance	<b>\$450</b>
Digitals	<b>\$150</b>
Philanthropy	<b>\$300</b>
Food	<b>\$150</b>
Transportation	<b>\$150</b>
Other	<b>\$450</b>
<b>Total</b>	<b>\$3,000</b>

2. If you invest \$15,000 at a 5.5% annual guaranteed rate compounded annually, how many years must you wait before you have \$25,000 in the account?

**$(\$15,000)(1.055^x) = \$25,000$  yields 9.5 years.**

**Solve using a graphing calculator and finding the intersection of each side of the equality.**

3. Which is the most productive \$4,000 investment for 8 years? 2.5% compounded quarterly or 3% compounded annually? Show details of your reasoning.

**$\$4,000 (1 + (0.025/4))^{(8 \times 4)} = \$4,882.57$**

**$\$4,000 (1.03)^8 = \$5,067.08$**

**Higher rate with less compounding.**

4. How much must you invest today at 4.6% compounded monthly in order to have \$20,000 in 15 years?

**$\$20,000 = X(1 + (.046/12))^{(15 \times 12)}$**

**$X = 10,044.76$**

## Appendix D

Level 2 Post-test.

**Finance for the High School Grad**

**Name:** \_\_\_\_\_

**Investment Calculation and Budgeting Post-Test**

**Date:** \_\_\_\_\_

Directions: Use your background and newly acquired knowledge to best address the following challenges which represent the material that was be covered in this finance short course. Show your work details.

1. Your salary just increased from \$3,500 per month to \$4,000 per month. Below is your budget allocation based on the initial salary. Adjust the budget to account for the increase.

Savings (10% of earnings),

Income tax (15% of earnings),

Housing (fixed.),

Health/Life/Car Insurance (fixed.),

Digitals (fixed),

Philanthropy (10% of earnings)

Food (fixed)

Transportation (fixed)

Other (remaining)

Personal Budget Item	Initial Allocations	New Allocations
Savings	\$350	
Income Tax	\$525	
Housing	\$700	
Health/Life/Car Insurance	\$525	
Digitals	\$200	
Philanthropy	\$350	
Food	\$150	
Transportation	\$175	
Other	\$525	
<b>Total</b>	<b>\$3,500</b>	



2. If you invest a \$30,000 inheritance when you are 20-years-old, at a 3.5% annual guaranteed rate compounded annually, how much money will be in that account when you retire at age 70??

3. You just sold your car for \$12,000 as you plan to use public transportation and your bicycle while in college. Which investment strategy would yield the most return on this \$12,000 for the next ten years, a 3.5% annual rate compounded annually, or a 3.35% annual rate compounded monthly? Show details of your reasoning.

4. In order to start your own business when you graduate from college, you have calculated that you will need \$25,000 in an account when you graduate in 5 years. If you can get a 4.25% annual rate compounded quarterly, how much money do you need to put into the account today?

## Appendix E

Answer key for Appendix D.

**Finance for the High School Grad**

**Name:** \_\_\_\_\_

**Investment Calculation and Budgeting Post-Test**

**Date:** \_\_\_\_\_

Directions: Use your background and newly acquired knowledge to best address the following challenges which represent the material that was covered in this finance short course.

Show your work details.

1. Your salary just increased from \$3,500 per month to \$4,000 per month. Below is your budget allocation based on the initial salary. Adjust the budget to account for the increase.

Savings (10% of earnings),

Income tax (15% of earnings),

Housing (fixed.),

Health/Life/Car Insurance (fixed.),

Digitals (fixed),

Philanthropy (10% of earnings)

Food (fixed)

Transportation (fixed)

Other (remaining)

Personal Budget Item	Initial Allocations	New Allocations
Savings	\$350	<b>\$400</b>
Income Tax	\$525	<b>\$600</b>
Housing	\$700	<b>\$700</b>
Health/Life/Car Insurance	\$525	<b>\$525</b>
Digitals	\$200	<b>\$200</b>
Philanthropy	\$350	<b>\$400</b>
Food	\$150	<b>\$150</b>
Transportation	\$175	<b>\$175</b>
Other	\$525	<b>\$850</b>
<b>Total</b>	<b>\$3,500</b>	<b>\$4,000</b>

2. If you invest a \$30,000 inheritance when you are 20-years-old, at a 3.5% annual guaranteed rate compounded annually, how much money will be in that account when you retire at age 70??

$$\mathbf{\$30,000 (1.035)^{50} = \$167,547.81}$$

3. You just sold your car for \$12,000 as you plan to use public transportation and your bicycle while in college. Which investment strategy would yield the most return on this \$12,000 for the next ten years, a 3.5% annual rate compounded annually, or a 3.35% annual rate compounded monthly? Show details of your reasoning.

$$\mathbf{\$12,000 (1.035)^{10} = \$16,927.19}$$

$$\mathbf{\$12,000 (1 + (.0335/12))^{(12 \times 10)} = \$16,767.46}$$

**Higher rate, less compounding.**

4. In order to start your own business when you graduate from college, you have calculated that you will need \$25,000 in an account when you graduate in 5 years. If you can get a 4.25% annual rate compounded quarterly, how much money do you need to put into the account today?

$$\mathbf{\$25,000 = X (1 + (.0425/4))^{(5 \times 4)}}$$

$$\mathbf{X = \$20,236.68}$$



## Appendix F

Level 3 Survey to determine student behavior level changes related to the concepts and finance short course materials.

**Finance for the High School Grad**

**Name:** \_\_\_\_\_

**Learner Perspective Survey**

**Date:** \_\_\_\_\_

Directions: Read each question and circle the number of the ranking that best describes your perspective of your action relative to the aspect of the finance short course addressed in the question. Scoring: 1 represents 'Not' your current thoughts while 5 represents 'Very' representative of your current thoughts.

Q u e s t i o n	<h1 style="margin: 0;">Perspective Questions</h1>	N o t	B a r e l y	S o m e w h a t	Q u i t e	V e r y
1	How much did the information presented in the finance short course positively influence your thoughts regarding budgeting and money management?	1	2	3	4	5
2	How apt are you to spend more time pondering financial aspects of your life now compared with your thoughts before you took the finance short course?	1	2	3	4	5
3	How probable are you to analyze a financial situation now, that you would not have thought through before you took the finance short course?	1	2	3	4	5
4	After completing the course, how eager were you to get involved in financial discussions with peers and family related to budgeting for life after high school?	1	2	3	4	5
5	To what extent have the skills and knowledge acquired in the finance short course influenced you to address financial questions and situations differently in the future?	1	2	3	4	5
6	To what extent has the finance short course influenced you to pursue further financial knowledge and experience?	1	2	3	4	5

## Appendix G

Level 4 evaluation will occur via 4 multiple choice questions on the End of Course Exam.

The following four questions will be spread throughout the Exam and will evaluate how well the training was retained. There will be no questions of this type included on the End of Course Exam Review to ensure that we are evaluating longer term retention. Correct answers in bold.

1. Which of the following financial investment models will yield the most money over a 13 year period?
  - A) 5% annual rate compounded monthly.
  - B) 4.75% annual rate compounded monthly.
  - C) 5.25% annual rate compounded annually.**
  - D) 5.1% annual rate compounded biweekly.
2. Which of the following is not a reasonable, typical budget entry?
  - A) 20% of salary for housing.
  - B) 15% of salary for income tax.
  - C) 10% of salary for philanthropy.
  - D) 20% of salary for food.**
3. Which of the following is the yield for investing \$20,000 for 20 years?
  - A) \$54,029 for 5% annual yield compounded quarterly.**
  - B) \$48,227 for 4.75% annual yield compounded monthly.
  - C) \$52,305 for 5% annual yield compounded quarterly.
  - D) \$47,205 for 4.75% annual yield compounded quarterly.
4. What amount must have been invested on the day of your birth in order to provide a starter fund for college of \$30,000 after 18 years of investment at 5.2% compounded quarterly?
  - A) \$12,045
  - B) \$11,850**
  - C) \$13,470
  - D) \$11,250





### Appendix I

