

**Evaluation of the  
General Financial Literacy Program  
In Utah High Schools: 2008**

by

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## Introduction

### *Purpose and Scope of the Evaluation*

Beginning with the graduating class of 2008, Utah high school students are required to take 0.5 credits of General Financial Literacy (GFL). The purpose of this study is to evaluate how well the goals of this new core requirement are being met, and to evaluate the best options for advancing the burgeoning program. Three questions about the GFL program have directed this evaluation: What is being taught? How is it being taught? And how is it impacting students?

The information for evaluating this program was gathered from multiple sources, but primarily from online surveys. In May of 2008, General Financial Literacy (GFL) teachers and students from 45 high schools and 27 districts across the state of Utah participated in this study.

### *Background*

#### *The General Need for Financial Education*

Financial literacy, the result of financial education, is a broad term with several meanings. It may mean learning how to create and manage a household budget, invest, buy a house, or start a business. It also is part of an overall strategy to increase economic security for lower-income families. It affects the social well-being of every community and, ultimately, the overall strength of the economy (National Conference of State Legislatures, 2008, Financial Literacy, para 1). As stated in a study by Bowen and Jones (2006), “couple the lack of financial education with the increasing frequency of corporate scandals, ethics violations, and fiscal irresponsibility and the ingredients for a national financial disaster are in place” (p. 33). To avoid financial problems, Americans need to

become educated in a variety of financial areas, or in other words, become more financially literate.

Americans are faced with increasingly more complex economic conditions than preceding generations. Chairman of the Board of Governors of the Federal Reserve System Allan Greenspan (2005) explained:

Today's financial world is highly complex as compared with that of a generation ago. Twenty-five years ago, knowing how to maintain a checking and savings account at a local financial institution was sufficient for many Americans. Today's consumers, however, must be able to differentiate among a wide range of products, services, and providers of financial products in order to manage their personal finances successfully. (p. 64)

As the nation's financial situation becomes more complex, the knowledge required for responsible financial decisions is not keeping up. Consumer debt, low savings rates, and record bankruptcies are commonly considered the result of low financial literacy levels among Americans (Fox, Bartholomae & Lee, 2005). Whether due to the growing complexities of finances or other reasons, financial illiteracy in the United States is astoundingly high; as a result, half of all Americans today are living paycheck to paycheck and have not started saving for retirement. Personal spending is rising faster than disposable personal income. For many Americans, unpaid credit card balances exceed their 401(k) balances. These societal trends indicate an immediate need for preparing young people to manage their personal finances intelligently (Suiter & Meszaros, 2005). The far-reaching effects of financial illiteracy have led to increasing efforts to promote financial education in America.

Government initiatives have called on Americans to learn the basics of saving and investing for long-term financial independence. These initiatives target both general and

specific audiences and aim to educate Americans on many topics including credit management, debt management, risk management, home ownership, retirement planning, and investing. Along with federal actions, seven states, including Utah, currently have mandated that personal financial literacy be incorporated into the core requirements for high school graduation (National Council on Economic Education, 2007). In addition to the multiple government actions, the Nationwide Jump\$start Coalition is just one of the numerous public and private organizations that are developing educational materials or otherwise furthering the cause of improving financial literacy. “The chorus of advocates for more financial literacy grows louder every day. More than 140 corporations, government agencies, educational organizations, and nonprofit organizations have formed the Jump\$start Coalition for Personal Financial Literacy to advocate for more and better programs” (Morton, 2005, p. 66). Jump\$start has a particular mission to advance personal finance education in K-12 schools, identify high-quality personal finance materials for educational use, and encourage curriculum enrichment (Jump\$start Coalition for Personal Financial Literacy, 2002).

K-12 schools are among the many settings in which financial principles are learned. Parents and relatives, neighbors and friends, local and national media, and personal experiences shape both knowledge of and attitudes toward finances. The responsibility of helping youth become financially literate does not belong to school teachers alone, but if teachers use appropriate strategies and materials, then youth can learn worthwhile content in economics and personal finance (Godfrey, 2006). The state of Utah has recognized a need and responded in part by requiring high school students to obtain a financial education.

### *Utah's Response to the Need for Financial Education*

Many organizations in Utah have responded to the need for financial education in multiple ways. The Utah Council on Financial and Economic Education (UCFEE) was established in 2009 as an umbrella organization to coordinate the efforts of many financial education advocates. Chaired by the Utah state Treasurer, this organization was formed with the “goal of reinforcing the financial skills of, and encouraging positive financial behavior by, the Utah state citizenry”. To achieve these goals, UCFEE intends to promote a cohesive approach to financial and economic education and literacy by:

1. Building on the strength of the existing programs of Participating Members;
2. Connecting current financial education programs with consistent, common marketing for increased impact and results; and
3. Working to imbed financial and economic education into all areas of an individual's life.

In addition to various public, private and nonprofit organizations in Utah promoting financial literacy, the Utah State Office of Education (USOE) has responded to the need for financial education, which was addressed in Senate Bill 154 in the 2003 general session. The bill states that curriculum and graduation requirements are to “include instruction that stresses general financial literacy from basic budgeting to financial investments, including bankruptcy education” (Section 53A-13-108). The GFL course is now required for graduation. Senate Bill 61 in the 2008 general session supplements the original legislation; it allocates a one-time \$150,000 for “curriculum integration and development of assessments and materials related to financial literacy,” and annually \$100,000 for “professional development and assessments” (Section 53A-13-

110). These legislative actions advance financial education in Utah high schools; they also support other K-12 financial education programs, including integration of financial topics into other subjects and encouraging students to complete a “financial literacy passport” that tracks mastery of financial concepts.

For graduation, an alternative to the required 0.5 credit GFL course is an integrated 1.0 credit Adult Roles and Financial Responsibilities course, which “prepares students to understand the nature, function, and significance of individual and family relationships integrated with general financial literacy” (Utah State Office of Education, n.d., para 8). The USOE, in cooperation with the Utah business and finance community, has developed the standards and objectives of the GFL course, which is intended to briefly survey many financial topics. The course includes lessons on planning, goal setting, career preparation, credit management, consumer protection, money management, saving and investing, and risk management. With limited time to cover many potentially large financial topics, the course must balance between depth and breadth of content coverage.

### *Content Coverage*

Breadth of content coverage, or (simply stated) content coverage, is defined as the number of topics and subtopics covered that establish categories for further exploration and understanding. The complexity of a domain’s categories, their abstractness, and their relationships produce depth of content coverage (Anderson, 2001). Just as geometric area is made up of both length and width, so also is breadth of coverage meaningless without depth. F. M. Newmann used the metaphor “a mile wide and an inch deep” to describing an imbalanced course leaving little for students to probe or analyze (FDIC, 2007). As

breadth increases, depth must decrease; therefore, given the time constraints of a school course, teachers might wonder if depth or breadth is best. A better question to contemplate is: When is one better than the other? This indicates that some educational settings are better suited for one extreme or the other. For example, a survey course intended for college students beginning a program of study gives them a broad overview of the program, while a technical course teaches specific, applicable knowledge and skills.

To develop competence in an area of inquiry, students need to have both a deep understanding of factual knowledge and understand facts and ideas in the context of a conceptual framework (Bransford, Brown, & Cocking, 2000). Studies involving content coverage explain that too much breadth can prepare students to further their financial education without enhancing their disposition to do so (Anderson, 2001). Conversely, too much depth obstructs student's contextual perspective, leaving students unaware of many topics and important relationships between them (Reid & Morganti, 1996). And excessiveness in skill learning, drills and practice of particular small segments when outside of meaningful context, can reduce students disposition to use the skills (Katz & Raths, 1985). The high school GFL course will not produce financial experts, but if students are to develop an adequate level of competence, the course may need to briefly outline many topics and then focus in depth on a few prioritized topics. Providing an overview of topics using a concept map or other mnemonic device early in and reinforced throughout the course may help with this. In this way, the course can help students develop a mental framework that prepares them to continue their financial education and empowers them with useful knowledge and skills.

Both depth and breadth of content coverage contribute to development of schemas: mental frameworks for organizing knowledge and related concepts into meaningful structures (Sternberg, 2005). In hierarchical schemas, breadth of domain knowledge establishes nodes which “hook” incoming, subordinated details. In other words, existing knowledge impacts the organization and understanding of new knowledge. According to Ausubel, what a person already knows is the greatest factor influencing learning (Driscoll, 2005). A broad framework prepares a learner for continued learning in a domain. Furthermore, the level of depth acquired largely influences students’ ability to apply what they learn to specific, real-life settings.

Transfer, the process of transferring what is learned in one setting to new settings, is a major goal of education (Bransford, Brown, & Cocking, 2000). For transfer to occur, the threshold of initial learning must produce strong enough understanding to support adaptive, flexible application to new settings. Lorin Anderson at the University of South Carolina wrote “...depth of content coverage is more likely to result in greater transfer of what is being learned, in part because it leads to greater understanding” (2001, p. 8). The process of deeply integrating new information into existing information, known as consolidation, takes time but promotes understanding. Consolidation, and hence transfer, is enhanced with varied practice, exposure to subtopics in multiple contexts, and time spaced reviews (Driscoll, 2005). Similarly, transfer is more likely to occur if integrated knowledge becomes automatic as a result of deep topic exposure. Automatic processing decreases dependency on attentional processes in times when the learned attitudes and behaviors need to be applied, whereas a “smattering” approach may produce learning but probably not mastery well enough to be employed under pressures of the real world (Katz

& Raths, 1985). Consolidating, automating and ultimately applying understanding are achieved by focusing on topics in depth, but the desire for these results needs to be balanced with the benefits of a broad education.

The practical advantages that result from leaning toward depth of coverage do rob a course of covering more topics, and thus limit students' overview of the domain. Also, too much repetition of simple concepts can quickly turn into busy work and lead to boredom. For the GFL course, teachers must determine the most appropriate balance based on what they seek to accomplish. An observant teacher can monitor the balance between depth and breadth of coverage, which is largely determined by the objectives of a course or program.

#### *Goals of the GFL Program*

The general goals of the GFL course are that students will *engage in establishing* career goals, *demonstrate an understanding of* personal financial planning and sound money management skills, and *understand and accept responsibility for* consequences of financial decisions (Felshaw, 2007, Course Goals, para 1). The Intended Learning Outcomes (ILOs) anticipate that students will learn both skills and attitudes toward saving, investing, financial planning, and money management (Utah Education Network, n.d., para 4). While these goals give the program direction, they are broad and difficult to measure.

In addition to the general goals of the program, individual teachers have expressed several other broad and specific goals, including how deeply to cover topics. Most GFL teachers in Utah high schools cover many topics briefly and expand on a few they feel are most important. Teachers conveyed goal statements including, "My goals

have been to cover a few of the basic or important topics in depth and then to briefly go over the other topics” and, “The state standards and objectives can be fairly broad which allows teachers to go in depth where they feel is best...” In some cases, expounding on complex topics in depth is limited by teachers’ background knowledge and experience.

Other goals expressed by teachers include:

To help students...

- “Understand the importance of staying out of debt.”
- “Understand the economy.”
- “Get a little bit serious about becoming literate in any of the GFL topics.”
- “Believe that they have control over and responsibility for their own financial lives.”
- “Realize the importance of managing their money at a young age.”

A variety of goals leads to multiple outcomes, and diversity between sites may suggest focus areas for refinement in the program (Freeman & Rossi, 1993). By clearly defining more specific goals, the GFL program can establish more consistency and an accountability system that measures progress. The information from this study is intended to provide a review of the program’s current status so that teachers and administrators at state, district and school levels can help advance the new program. This evaluation estimates discrepancies, if any, between the original intent of the program and its current implementation, and also recognizes many of the program’s early successes.

To assess many of the desired outcomes of the GFL course would require testing and a longitudinal study, but this study did gather potentially useful information from teacher and student surveys. Like many other education domains, the primary intent of

financial education is to help students transfer what is learned in the classroom to real-life applications, but “exhibiting greater financial management skill as a consumer is several steps removed from the receipt of personal finance education as a student” (Tennyson & Nguyen, 2001, p. 242). Measuring the ultimate impact of the course is beyond the scope of this study, so this evaluation was designed to estimate the immediate impact on students’ financial understanding, attitudes and behaviors.

## Methodology

### *GFL Program Evaluation Procedures*

To assess the current status of the program, online surveys were offered to GFL teachers and students. Participants were asked to give consent to participate and then complete the surveys during the last few weeks of the 2008 spring semester.

#### *Consent Process and Data Collection*

Permission was obtained from districts, schools, teachers, parents of students and students before collecting data. The consent and data collection process included:

- 1- An Institutional Review Board (IRB) process for approval of procedures and survey instruments.
- 2- Obtaining district and high school approval for participation. Nearly all districts and high schools in Utah were invited to participate, and some required a formal application.
- 3- Obtaining teacher consent. Teachers gave consent to participate by visiting [www.gflteacher.com](http://www.gflteacher.com). Teachers received cash or a gift certificate for participating.
- 4- Obtaining parental consent and student assent. Students who returned a signed parent consent letter to their teachers were given another letter requesting their

assent by visiting [www.gflstudent.com](http://www.gflstudent.com). Students age 18 and over gave consent by visiting a different link on the same website. Many of the participating students received extra credit from their teachers.

5- Teachers and student completed online surveys (linked to [surveymonkey.com](http://surveymonkey.com)).

### *Survey Participants*

Teachers and students involved in the 0.5 credit GFL class during the spring 2008 semester completed the surveys. Teachers and students from alternative high schools were included, but students fulfilling the course by “packets” or online through Electronic High School were not included. Also, the 1.0 credit Adult Roles course, the only other course that satisfies the GFL requirement, was not included in the study.

The survey sample included 58 GFL teachers and 1,126 GFL students from 45 high schools and 27 school districts in the state of Utah. Of the GFL teachers who participated in the surveys, 39 also had students participate. Forty-eight percent of the student participants were males and 52 percent were females. Students were juniors and seniors with 32 percent age 18 or over.

### *Survey Instruments Design*

The surveys were designed to acquire as much information about the program as possible without overburdening the participants. To do this, attention was given to decreasing the cognitive load of those taking the surveys. The order, length, and structure of the questions and response options were revised for efficiency and accuracy in addressing the goals of the study. A pilot survey process helped to test and improve the surveys, which ultimately were designed to address what is being taught, how it is being taught, and how it is impacting students’ behaviors and attitudes.

*The Teacher Survey Inquired About:*

1. Resources and teaching methods utilized
2. Teacher goals
3. Challenges of teaching the GFL class and suggestions to overcome these challenges
4. Topic coverage

*The Student Survey Inquired About:*

1. Ratings of how well resources and teaching method helped to improve understanding
2. Ratings of teacher motivational method
3. GFL class compared to required and elective classes (how interesting and challenging)
4. Ratings of how well the course improved understanding on 12 major topics
5. Attitudes toward the course and financial education in general
6. Changes in financial behaviors

*Calculating Scores*

Presented here are the methods for quantifying student outcomes and teacher information at the student and teacher levels. These calculations equate scores for student behaviors, student attitudes, and student understanding. Students also gave ratings of teacher motivational methods, interestingness of the course and challengingness of the course. Teachers provided information about depth of content coverage. Teacher level analysis is done with by-teacher scores, which are derived by averaging the student scores of each teacher.

### *Understanding Score*

Assessment of understanding is based on student self-reports. Metecognition studies suggest that students often overestimate their understanding, so testing is required to truly assess understanding (Isaacson & Fujita, 2006). Given the limitations of this study, understanding-scores were derived by asking students how well the course helped to improve their understanding of the following 12 topics:

- 1= Strongly Disagree
- 2= Disagree
- 3= Somewhat Disagree
- 4= Somewhat Agree
- 5= Agree
- 6= Strongly Agree

- 1 Saving and Investing
- 2 Debt and Bankruptcy
- 3 Budgeting and Accounting
- 4 Credit Management (Credit Score/Report)
- 5 How Education and Skills Impact Finances
- 6 Insurance and Risk Management
- 7 Income and Deductions Including Taxes
- 8 Consumer Protection (ID theft, avoid scams etc.)
- 9 Setting Goals and Making Good Decisions
- 10 Retirement and Estate Planning
- 11 Economics
- 12 How Culture and Emotion Impact Finances

The individual understanding score is the average of all 12 responses.

*Behavior Scores*

To produce a behavior score, students responded to three statements beginning with, “Because of the GFL class I NOW...”

	1	2	3	4
	No	Somewhat Agree	Agree	Strongly Agree
Spend money more wisely than before				
Save and/or invest better than before				
Have specific retirement goals				

The individual behavior score is the average of the three responses.

*Attitude Score*

Attitudes are learned beliefs, feelings, values and dispositions to act in certain ways. According to the ABC model, a person’s attitude toward something is made up of affective, behavioral and cognitive elements. The survey assessed students’ thoughts about (cognitive), feelings toward (affective) and intended actions involving (behavioral) three ways to continue their financial education: reading books, watching programs, and attending a class or seminar. Measurements of attitude toward specifics such as investing or risk management were impractical because of classroom variations in topics and topic depth; therefore, this study focused on measuring attitude toward financial education. This is appropriate because the course is intended to be a survey of topics and not in-depth training, so for students to get the most from the course they need to build upon the framework developed during the course.

Students responded to nine items which produced student’s attitude-toward-financial-education score, or simply their attitude score.

- 1= Strongly Disagree
- 2= Disagree
- 3= Somewhat Disagree
- 4= Neutral
- 5= Somewhat Agree
- 6= Agree
- 7= Strongly Agree

	Read Books	Watch Programs	Attend Class or Seminar
I believe it is important to	1	2	3
I would enjoy	4	5	6
I plan to	7	8	9

The individual attitude score is the average of all nine responses.

### *Interestingness and Challengingness*

Students rated from one (strongly disagree) to seven (strongly agree) how interesting and challenging was the GFL course. To establish a comparative reference, students were also asked to rate their required and elective courses. More meaningful than the GFL rating alone is the GFL rating compared to ratings of other required and elective classes. For example, what percent of students rated the GFL class with a higher, equal to, or lower rating than their other required classes? The results of this and other questions are expanded upon. The single rating of the GFL course is used for correlations with other scores.

### *Depth of Coverage Score*

If teachers spend the same amount of quality time in a course, then teaching fewer topics will result in greater depth per topic. Measuring depth and breadth of coverage in the GFL course is not truly comparable if some classrooms spend time more effectively than others, but the number of topics covered was used to produce depth of coverage scores.

### *Teacher Motivation Score*

Students were asked to rate how well their teacher applied 12 motivational methods. The substance for these methods is derived from an article titled “Methods of Motivational Teaching” by school psychologists at the University of New England. The authors propose approximately 100 motivational methods, which form 12 categories. These methods and categories come from social cognitive theory, psychotherapy methods, teaching experts and their own experiences as students and teachers (Malouff, Rooke, Schutte, Foster & Bhullar, 2008). An example of the items GFL students responded to is:

- 1= Strongly Disagree
- 2= Disagree
- 3= Somewhat Disagree
- 4= Somewhat Agree
- 5= Agree
- 6= Strongly Agree

My teacher tried to make topics relevant to my life.

- Related topics to things I was interested in
- Encouraged students to discuss personal applications

The 12 motivational methods are:

- 1- Encouraged us to set and achieve goals
- 2- Had positive relationship with students
- 3- Made topics relevant to my life
- 4- Refrained from de-motivating
- 5- Modeled good learning habits
- 6- Enhanced student self-efficacy
- 7- Gave meaningful feedback
- 8- Persuaded students to learn
- 9- Used engaging teaching methods
- 10- Rewarded achievement and effort
- 11- Used appealing teaching style
- 12- Monitored student motivation and made adjustments

Averaging student responses to all 12 items produced individual student ratings of teacher motivational methods.

### *By-teacher Scores*

In order to analyze student outcomes at the teacher level, all student scores of each teacher are averaged, thus producing by-teacher scores. These are used to correlate by-teacher student outcomes with other teacher differences such as depth of coverage. Examples of by-teacher scores include motivational methods and overall class understanding, attitudes and behaviors.

### Results

The results of this study are encouraging because many students and teachers have responded positively to the new graduation requirement. Many students are glad the GFL course is required, and teachers agree it provides a nice platform for teaching important life skills. Along with the immediate successes, a new program will always require improvements. While recognizing the instant successes of the program, this review also addresses the challenges of the program and in a later section presents possible solutions to those challenges. The results of the program evaluation provide a representation of what is taught in the GFL course, how it is taught, and its impact on students.

### *What is Taught*

Teachers covered many of the topics outlined by the standards and objectives of the course. Table 1 lists 12 topics and 64 subtopics covered during the course. Students were asked how much they feel the course helped to improve their understanding of the 12 major topics, and the results are summarized in Table 2. After reviewing what topics were covered and students' improvement in understanding, this section will also show teacher differences in depth of content coverage.

## Topic Coverage

The following is a list of topics and subtopics covered in the GFL course. Next to each topic is displayed the percent of teachers who covered the topics; **bolded** numbers are used to emphasize when 20 percent or more of the teachers either did not cover a topic or covered it extensively.

- Not Covered or Covered Very Briefly- Less than 30 minutes
- Covered Briefly to Moderately- 1 or more 90 minute class periods, or 1-2 or more 45 minute class periods
- Covered Extensively to Very Extensively- 1 week or more per topic.

Table 1

N = 54 Teachers

		Not Covered or Covered Very Briefly	Covered Briefly to Moderately	Covered Extensively to Very Extensively
1-Goals and Decisions				
	Setting and Achieving Goals	13%	69%	19%
	Consequences of Decision Making	6%	80%	15%
	Needs vs. Wants	9%	76%	15%
2-Culture and Emotion				
	Peer Pressure and/or Culture	<b>41%</b>	56%	4%
	Lifestyle Costs and Standard of Living	17%	72%	11%
	Advertising and/or Sales Strategies	<b>28%</b>	61%	11%
	Principles of Psychology Applied to Finances	<b>56%</b>	39%	6%
3-Education and Skills Development				
	Education and Career Planning	7%	67%	<b>26%</b>
	Skills for Getting a Job	15%	63%	<b>22%</b>
	Work Conditions of Different Careers/Jobs	<b>37%</b>	54%	9%
	Work Laws (Fair Labor, Equal Pay, Disability Act etc.)	<b>54%</b>	46%	0%
	Entrepreneurship	<b>52%</b>	48%	0%
	Pyramid Schemes	<b>72%</b>	28%	0%
4-Income and Deductions				
	Wages of Different Careers	19%	63%	19%
	Benefits Other Than Wages	9%	70%	<b>20%</b>
	Types of Taxes	13%	74%	13%
	Payroll Deductions Other Than Taxes	15%	72%	13%
	Tax Preparation	<b>33%</b>	52%	15%
	Government Uses of Taxation	<b>43%</b>	52%	6%

5-Budgeting and Accounting				
	Budgeting	2%	57%	<b>41%</b>
	Income/Expenses vs. Cash Flow	2%	74%	<b>24%</b>
	Fixed vs. Variable Expenses	17%	70%	13%
	Accounting Methods and Software	<b>46%</b>	54%	0%
	Balance Checking Account	11%	67%	<b>22%</b>
	Assets – Debt = Net Worth	<b>26%</b>	65%	9%
	Liquidity	<b>31%</b>	59%	9%
6-Credit				
	Credit Rating/Report/Score	6%	63%	<b>31%</b>
	Credit Worthiness (i.e. 3 C's of Credit)	9%	67%	<b>24%</b>
7-Debt and Bankruptcy				
	Home Loans	<b>20%</b>	59%	<b>20%</b>
	Credit Card Debt	2%	52%	<b>46%</b>
	Causes of Bankruptcy	11%	61%	<b>28%</b>
	Bankruptcy Filing Types	<b>35%</b>	57%	7%
8-Economics				
	Micro vs. Macro Economics	<b>78%</b>	20%	2%
	Recession/Depression Cycles	<b>63%</b>	35%	2%
	Inflation	<b>37%</b>	57%	6%
	Stagflation	<b>80%</b>	19%	2%
	Supply and Demand	<b>31%</b>	59%	9%
	Opportunity Cost	<b>30%</b>	63%	7%
	Marginal Analysis/Marginal Utility	<b>78%</b>	20%	2%
9-Consumer Protection, Scams and ID Theft				
	Consumer Bill of Rights	<b>33%</b>	65%	2%
	Consumer Protection Agencies (FDA, BBB, CPSC etc.)	<b>35%</b>	59%	6%
	Identity Theft	11%	70%	19%
	Scams (Pretexting, Phishing, etc)	<b>24%</b>	61%	15%
10-Insurance and Risk Management				
	Insurance (Automobile, Home, Personal Property)	9%	69%	<b>22%</b>
	Insurance (Health, Medical, Life)	15%	63%	<b>22%</b>
	Insurance (Business: Liability, Property, Workers' Comp.)	<b>31%</b>	59%	9%
	Insurance Rate Factors (Territory, Age, Medical History, Vehicle Type, etc)	<b>33%</b>	54%	13%
	Premiums and Deductibles	<b>20%</b>	63%	17%
	Warranties-Full and Limited Warranties	<b>54%</b>	44%	2%

11-Saving and Investing				
	Challenges and Rewards of Saving	2%	59%	<b>39%</b>
	Savings as a Ratio of Earnings	15%	61%	<b>24%</b>
	Savings Account, Money Market Account and/or Certificate of Deposit (CD)	2%	67%	<b>31%</b>
	Principal and Interest (Simple and/or Compound)	0%	70%	<b>30%</b>
	Time Value of Money (PV, FV, Rule of 72)	9%	56%	<b>35%</b>
	Risk-return Analysis	<b>30%</b>	50%	<b>20%</b>
	Stock, Bond, Mutual Fund, Dividend, T-Bill	11%	52%	<b>37%</b>
	Real Estate	<b>24%</b>	61%	15%
	Diversification	<b>22%</b>	57%	<b>20%</b>
12-Retirement and Estate Planning				
	Retirement Planning	17%	69%	15%
	Social Security, IRA and/or Retirement Savings	13%	78%	9%
	Residual Income	<b>59%</b>	37%	4%
	Wills and Estate Planning	<b>59%</b>	35%	6%
	Trusts (Trustee, Beneficiary)	<b>67%</b>	30%	4%

### *Topic Understanding*

Some students believe they understood financial concepts well enough before starting the class, others recognize the complexities of financial matters and the need to strive for knowledge and understanding. When students overestimate their understanding they are likely to “discontinuing learning efforts prior to mastery” (Isaacson & Fujita, 2006). Assessments and real-life settings can help to determine understanding, but based on self-reports GFL students appear to have increased their understanding of financial topics. Students stated, “[The GFL course] helped me understand so much more... I am definitely glad I was able to take this course!” and “I now know how to finish balancing my checkbook...” The course helped students to “... better understand real estate,” “understand more about credit,” and “better understand credit card management, saving systems, and certain financial terms.” Many students agree or strongly agree the course helped them better understand several financial topics, while other students felt less

enlightened. Table 2 is a summary of how much students feel the course improved their understanding of the 12 topics, displayed from highest to lowest mean.

Table 2

1=	Strongly Disagree
2=	Disagree
3=	Somewhat Disagree
4=	Somewhat Agree
5=	Agree
6=	Strongly Agree

N=1085	Mean	StDv	1	2	3	4	5	6
Saving and Investing	4.98	1.05	2%	2%	5%	17%	39%	35%
Debt and Bankruptcy	4.82	1.04	1%	2%	5%	23%	42%	27%
Budgeting and Accounting	4.78	1.07	2%	2%	5%	23%	42%	26%
Credit Management (Credit Score/Report)	4.74	1.09	2%	2%	5%	25%	41%	25%
How Education and Skills Impact Finances	4.72	1.09	2%	3%	6%	24%	42%	23%
Insurance and Risk Management	4.70	1.07	2%	3%	6%	25%	42%	22%
Income and Deductions Including Taxes	4.67	1.07	2%	2%	6%	26%	44%	20%
Consumer Protection (ID theft, avoid scams etc.)	4.64	1.10	2%	3%	7%	27%	40%	21%
Setting Goals and Making Good Decisions	4.62	1.11	3%	3%	5%	29%	40%	20%
Retirement and Estate Planning	4.61	1.13	2%	3%	9%	25%	39%	22%
Economics	4.35	1.14	3%	4%	12%	32%	35%	14%
How Culture and Emotion Impact Finances	4.22	1.24	3%	7%	13%	30%	34%	13%

The topic list presented to students did combine some topics such as budgeting and accounting, so Table 2 is may not exactly reflect what students feel they learned, but because higher ratings from students are consistent with what teachers reported they focused on, the emphasis areas of the course become apparent. Budgeting, debt management, saving and investing appear to be the most emphasized topics in the GFL course, while culture and emotion, accounting, retirement, and economics appear to be less emphasized.

*Depth of Topic Coverage*

Neither extreme breadth nor extreme depth is expected in GFL classrooms, but because it is intended as a survey course, teachers lean toward breadth and cover many topics briefly. Given this expectation and the expectation teachers would differ, this study

aimed to identify if the level of depth of coverage relates to whether students feel more or less empowered with increased understanding or improved attitudes and behaviors.

When class time is used effectively, covering fewer topics results in greater depth per topic. Some of the topics, accounting for example, could be an entire course alone, so all teachers did treat the course as a survey course, but some leaned more toward breadth, covering more topics briefly. Figure 1, displays depth and breadth of coverage by showing the number of topics covered (“briefly covered” or more) by individual teachers.

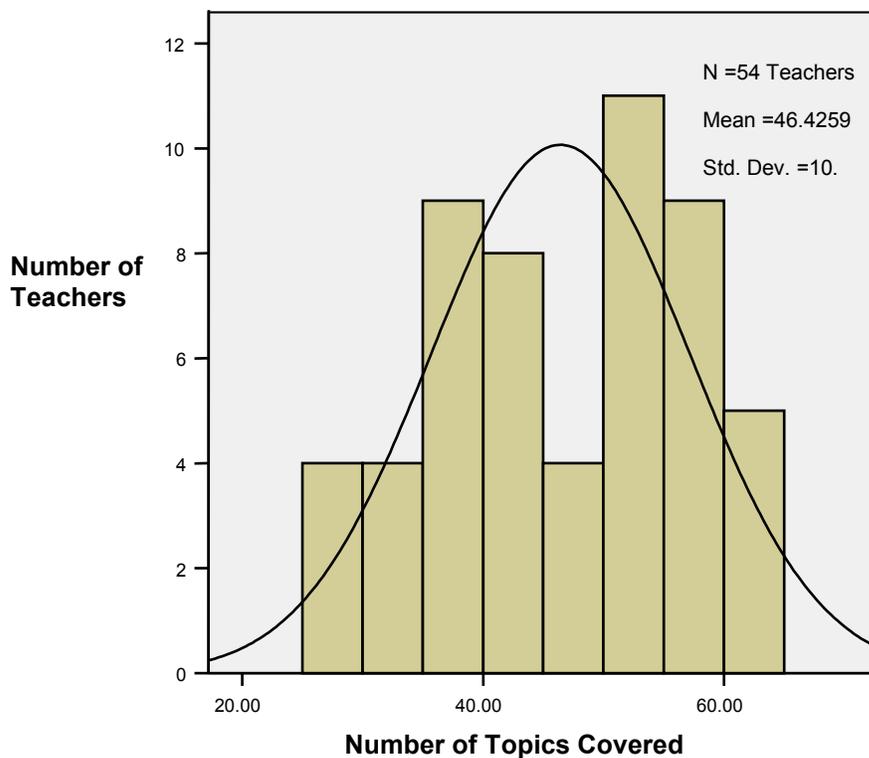


Figure 1. The number of topics covered by teachers varies from the high 20's to low 60's, which reasonably suggests a large difference in depth of coverage from classroom to classroom.

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This study did not find that depth significantly correlated with differences in understanding or behaviors. No significant correlation emerged between number-of-topics and understanding or behavior. A slight negative correlation was found between the number of topics covered and attitude toward financial education (see Table 3). The

relationship is mild but consistent with the idea that covering too many topics might prepare students with broad framework for building their financial education, but not increase their disposition to do so.

Table 3

N= 42	# of Topics	Attitude	Behavior	Underst.
# of Topics	1	-.373(*)	-.079	-.126
Attitude	-.373(*)	1	.700(**)	.529(**)
Behavior	-.079	.700(**)	1	.612(**)
Underst.	-.126	.529(**)	.612(**)	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Several possible reasons could explain the low and non-existent correlations between depth and outcomes. The effects of topic depth may only impact long-term transfer of knowledge or long-term success of continued education, and therefore, may not be evident in immediate outcomes. If immediate outcomes were detectable, then possibly only extreme cases of depth or breadth are consistent with this theory. If depth of coverage does impact immediate outcomes, another reason for not detecting these differences was the limitations of the survey instrument as an imprecise method for measuring and calculating depth of coverage. For teachers to remember exactly how much time was spent on topics is a difficult task, and some teachers were more liberal than others with using higher numbers. Also, some teachers used class time more effectively than others, so they were able to cover more topics and covered them in greater depth. This is apparent from student comments such as “Most of the class time feels like a waste of time.” and “Three quarters of the class was asleep at any given time.” Out-of-class time was also not equal. Some classes did lots of homework, while others were able to finish assignments in class and in some cases much before class time was over. A student said their class, “spen[t] most of the time reading the textbook in

class. Reading should be assigned as homework, and activities designed to encourage brain function should take place in the classroom.” The many factors influencing the data makes it difficult to identify relationships, so further research is needed to determine immediate and long-term effects of leaning toward depth or breadth of coverage.

Whether depth of coverage does or does not influence immediate student outcomes, the results of this study do illustrate differences in what is taught from classroom to classroom (Tables 1). Assuring adequacy and consistency of topic coverage across the state will probably necessitate establishing accountability measures, such as assessments or course evaluations as part of a coordinated statewide system. In addition to what is taught in GFL classrooms, how effectively the course is taught might be as important as the number of topics covered.

#### *How it is Taught*

The way a GFL course is taught influences student perceptions of the content covered. Following is a review of things that enhance the classroom experience including various teaching methods, resources, teacher endorsements, types and amounts of teacher training, teacher motivational methods, and how interesting and challenging students perceive the course to be.

#### *Teaching Methods and Resources Used*

GFL teachers use a variety of styles, strategies and resources when teaching the GFL course. See Appendix A through appendix G for full lists of methods and resources used. Not all of the resource items listed in the appendix are necessarily used effectively. These lists are intended to share ideas with GFL teachers and to display the vast assortment of resources currently used. Resources, including technology, can help to

make lessons appealing and efficient but are inherently “value free” (Gentry, 1995). Tools such as the internet, text books, games and videos are not always utilized effectively; hence, selection and use of each medium warrants careful teacher planning. For example, playing the game Monopoly in class can either simply pass a lot of time, or it can effectively teach cash flow management in conjunction with lectures about over- and under-aggressive investing. The following sections present student ratings of resource types and a brief review of each type used including text books, reading books, curriculum, teacher and guest lectures, websites, software, games, video/audio presentations, assignments, and projects.

*Student Ratings of Methods and Resource Types.* Students responded to the statement, “The resources and methods used in the General Financial Literacy (GFL) course have helped me to improve my financial understanding.” The resource types are listed in descending order of mean student ratings.

Table 4

- 1= Strongly Disagree
- 2= Disagree
- 3= Somewhat Disagree
- 4= Somewhat Agree
- 5= Agree
- 6= Strongly Agree

N=1103	Mean	St Dev	1	2	3	4	5	6
Video/Audio	4.57	1.18	2%	5%	8%	25%	39%	21%
Teacher lectures	4.50	1.33	5%	5%	9%	21%	37%	23%
Websites	4.50	1.07	2%	4%	8%	29%	43%	14%
Assignments and projects	4.46	1.21	3%	5%	9%	27%	37%	18%
Guest lectures	4.40	1.34	4%	7%	10%	23%	35%	21%
Software (games or other programs)	4.16	1.26	4%	7%	13%	31%	32%	12%
Text book/s	3.98	1.30	7%	8%	11%	36%	29%	8%
Non-software games	3.96	1.29	4%	11%	18%	31%	26%	11%

The GFL student ratings suggest that video/audio, teacher lectures and websites contributed more to increasing financial understanding than did non-software games and text books. Interestingly, resource type (i.e. video) appears less important than specific resource selection (i.e. effective videos vs. lots of videos) or how resources are used (i.e. used to pass time vs. used to enhance lecture). For example, most teachers who used the Dave Ramsey video (made available to all GFL teachers by Zion's Bank) series received high video/audio ratings, while another teacher received a low video/audio rating even though the class “watched a lot of videos” according to students. This information supports the idea that resources alone are “value free”(Gentry, 1995), but when used appropriately can add value and enrichment to the course.

*Text, Reading Books and Curriculum.* Teachers are not required to use a particular curriculum or texts and have numerous resources available for selecting teaching materials. The Utah State Office of Education does not recommend or endorse a specific text or curriculum package, but the teachers are encouraged to choose resources that will meet the standards, objectives and Intended Learning Outcomes (ILOs) of the course (Utah State Office of Education, n.d., para 5). Numerous organizations have produced financial education texts and programs designed for teens, but some teachers expressed difficulty selecting the best books and programs to use. One teacher commented, “There are so many resources, lesson plans, activities etc. it is hard to find the time to plow through them all, and find the ones that will be the most interesting to students.” Another said that a challenge of this course is, “taking the vast amount of information available [and] condensing and organizing it...” This monumental task has contributed to inconsistency in the course. A teacher expressed a common concern, “It feels like every

GFL teacher for themselves! I would like to see more consistency across the state.” Some districts and schools “are trying to make the curriculum uniform,” but for now teachers are using many different types of curriculum and texts.

Several teachers have selected texts that cover many of the standards and objectives of the course, while 12 percent of the teachers did not use text books. The most prevalent texts used in the GFL course include National Endowment for Financial Education (NEFE) High School Financial Planning Program, and Glencoe - Personal Finance & Banking. Managing Personal Finances by Joan S. Ryan was fairly prevalent, and some teachers used the Dave Ramsey High School Curriculum student handbook. Students usually responded positively to Dave Ramsey text, videos and audio. Some financial education text books available use a mathematical or “number crunching” approach but are not prevalent in the course. One such text, “Math for Business and Life” by John Webber, teaches vocabulary while helping students calculate things such as Compound Interest, Present Value (PV), Future Value (FV), and Financial Ratios (Debt ratio, Acid-test ratio, ROE). Reading books included “The Richest Man in Babylon” by George S. Clason, “Financial Literacy for Teens” by Chad Foster, and “The Automatic Millionaire” by David Bach. The numerous text and reading books used in the GFL course makes comparison of them impractical, but students responded positively to some of them. While many of the books are effective, this is another area that demonstrates inconsistency across GFL classrooms.

*Websites.* The “information age” provides the GFL class with countless websites containing useful information and activities. Nearly all GFL teachers utilized the internet for planning lessons, and many GFL students used the internet outside of class and during

class if computers were available. Students engaged in many online activities, including playing games, doing research, and using financial calculators. Most teachers listed some sites used by students or at least used for class preparation, and a few teacher said their class used too many to mention.

A small number of students expressed concern that some internet and computer assignments did not improve financial understanding. Students expressed that busy work assignments were boring and wasteful. One student said, “It’s boring just reading off the internet and typing all day, everyday.” Another explained, “We retype everything without even having to think, which is completely pointless.” While web activities can be wasteful, numerous sites are providing interactive and enlightening experiences. One student commented, “I learned the most [in this class] from doing research online.” One use of the internet that received high acclaim from students and teachers was an online simulation of stock investing called The Stock Market Game found at [www.smgww.org](http://www.smgww.org). Many students said things like, “I really enjoyed the online stock market game; it helped me understand how the actual stock market works.” Others commented, “I like the stock market game. It challenged us to use some of the things we learned and apply [them] in a fun way.” When used appropriately, the internet can be an important resource for GFL students.

*Computers and Software (Games or Other Programs).* Software applications can be very helpful in financial education, but not all GFL classrooms have access to these tools. Microsoft Office (Word, Excel, and PowerPoint) plays a big part in the course. Several teachers used power point presentations to organize and deliver the course content. Student also prepared PowerPoint slides for class presentations. Excel can be a

useful tool in many areas of financial analysis. Students used Excel for creating budgets and completing other financial calculations. Quicken, QuickBooks, and Turbo Tax are also among the software used. Forty-one percent of teachers reported students using no software in the course. This is probably due to not having access to computers or software during class.

*Non-software Games.* Games can enrich lessons by making learning activities fun and interactive, but fun activities disguised as education do not always produce learning. Some classrooms used games that only passed the time. Other classrooms utilized games that students both enjoyed and learned from. Among these are CASHFLOW 101 by Rich Dad Poor Dad, which “increased the overall togetherness of the class...while teaching [students at the same] time,” and Acquire, which according to students “really helped [students] learn [about] stocks.” The state training for teachers is one source that offered ideas for meaningful games that provide “hands on” learning experiences.

*Video/Audio.* Seven percent of teachers did not use any videos, but most classrooms used video or audio presentations to demonstrate concepts, grab attention, provide comic relief and entertainment, and provide extended teaching. Some of the most frequently used videos were, the “Suze Orman” series, “Dave Ramsey High School - Financial Peace for the next generation” and “Oprah's Debt Diet” series. Books on tape played during class received both positive and negative reviews from students. Surely the use of video and audio presentations can be easily abused; but these were rated highly by students as a resource type that helped them to increase their financial understanding (See Table 4).

*Assignments, Projects, Fieldtrips.* Assignments and projects included topic research, parent interviews, making collages and posters, completing NEFE workbooks, comparing prices and values of goods and services, keeping spending logs, setting short-term and long-term financial goals, building portfolios, filling out tax forms, reading and writing about current financial events, practicing vocabulary, writing wills, writing resumes, exploring college and career options and many others. Students enjoyed field trips to banks and credit unions, budgeting seminars, and the Utah Valley State College (UVSC) financial exposition. Students enjoyed assignments, projects and field trips that helped make the class “hands on” and informative, but didn’t like them if they seemed like “busy work.”

*Guest Lectures.* Teachers used from zero to nine or more guest lecturers with various backgrounds, including certified financial planners, certified public accountants, loan officers, police officers, business professionals, attorneys, salespeople, bank managers and so forth. Guest lecturers covered topics that included banking, ID theft, credit management, investing, healthcare, real estate and more.

Guest lecturers can bring expertise and variety to the classroom, but not all guest lecturers were effective or fully appreciated by students. One student said, “Going to the library and having a guest speaker on a regular basis shows that our teacher has a faulty lesson plan.” While this is not necessarily true, it portrays some of the negative experiences students had. The vast majority of comments about guest lectures showed that students enjoyed guest lecturers, learned from them and thought more should be invited. A student said, “I liked the guest speakers as long as they knew what they were talking about.” In some cases guest lecturers provided the best part of the class

experience. One student said, “What I liked most about this course was having guest speakers come that taught us about specific things such as life insurance, investment plans, and such. They had first-hand experience...” Another student mentioned the opportunity that “this course allowed me to come in contact with people like investors...” Students enjoyed and learned from guest lecturers who had expertise and presented topics in a clear, meaningful way.

*Teacher Lectures.* Teacher lecture makes up a large portion of class time and greatly influences the course. Teachers reported the percent of class time they spent lecturing.

Table 5

N=57					
Class time	0-20%	25-40%	45-60%	65-80%	85-100%
Teachers	11%	30%	39%	19%	2%

Students rated teacher lectures relatively highly for helping to improve financial understanding (See Table 4). Interestingly, the percent of class time spent lecturing has a low correlation with student ratings of how well lectures improved understanding ( $r=.273$ ,  $p>.05$ ). Statements from students express how the teacher lectures impact the course, “[Watching a] slide show in a darkened room [and] listen[ing] to a teacher with a droning, monotone voice was very much sleep inducing.” Contrastingly, “I liked listening to the lectures. They were helpful, and I wanted to hear them.” Evidently, lecture quality is more important than quantity.

*Teacher Qualifications*

The new graduation requirement has caused the GFL program to grow rapidly; therefore, filling the many new positions with qualified and prepared teachers is challenging. Few teachers had plans to teach financial literacy, and therefore may not

have in-depth training for teaching the class. The new positions are filled by teachers with a number of endorsement types, and many teachers have participated in a training session offered by the USOE. Participating in the training and going on to further professional development is recommended, but neither is required.

*Endorsement Types.* Several endorsement types are approved for teachers of the GFL course, so the course does not clearly belong in any specific field or department. The several endorsements were probably necessary in order to fill the numerous classroom positions in the first year, and they are each more or less justifiable because the broad domain of financial education mingles with many disciplines.

The approved endorsements for the course are:

#### Carrier and Technical Education (CTE)

- Business
  - Business Education Composite
  - Business Education Core Endorsement
  - Banking and Finance Endorsement
  - Marketing Education Composite
- Agricultural Education Composite
- Economics
- Family and Consumer Sciences Composite

#### Non CTE

- Math Level 2, 3 and 4
- Social Studies Composite
- History
- Psychology

In this study endorsement types were organized into Career and Technical Education (CTE) and non CTE categories because the survey was not completed by enough teachers from each endorsement type to identify trends of specific endorsements. Table 6 shows proportions of teachers in each endorsement category for all GFL teachers in the state of Utah (N=253) and for teachers who both completed the survey and had their students complete the survey (N=39).

	N=253	N=39
	Statewide	Surveyed
CTE	50%	56%
Non-CTE	39%	39%
Both CTE and Non-CTE	8%	5%
Non Qualified	3%	0%

This study did not attempt to identify trends of student outcome by specific endorsements. When categorized into CTE and non CTE endorsements, CTE had only mildly higher student outcome means, and the differences were not statistically significant (see Table 7).

N=39	Attitude		Behavior		Understanding	
CTE	Mean 4.30	St Dev .45	Mean 1.72	St Dev .5	Mean 5.70	St Dev .3
Non CTE	Mean 4.16	St Dev .48	Mean 1.60	St Dev .42	Mean 5.49	St Dev .39

Endorsement type may not be the most important teacher factor in this course, but the variety of educational backgrounds is another area of inconsistency in the program. Even though each of the several endorsement types are justifiable and were probably necessary the first year of the program, narrowing the list of approved endorsements or requiring professional development in a specific field of study may be advantageous as the program progresses. One teacher stated:

One challenge that our students face is that Financial Literacy courses are taught by teachers with varying degrees of financial literacy, preparation or background. I believe that the Financial Literacy courses should be taught by certified Career and Technical Education teachers. The state should provide CTE "add-on" money to deliver these courses.

CTE might be the most appropriate field in which to focus professional development. Studying business management, marketing, economics, consumer science, and finance can help teachers deepen their understanding of financial topics. Establishing

more consistency in educational background should help to elevate teacher qualifications and establish more consistency in the program.

Perhaps the multiple endorsements partially explain why the course is treated differently across districts. The GFL course does not currently have a home, and many districts have not appointed a representative for the course, so statewide collaboration and accountability is difficult. Some proactive districts have enlisted a curriculum director or other appointed persons to coordinate resource sharing and GFL teacher collaboration. Other districts have utilized their CTE department to oversee the program. CTE is a likely candidate for housing the course because many financial topics are already major elements of business, marketing, economics and consumer education. In many districts the Adult Roles course is already a part of CTE. Quality and consistency are likely to be unreliable until the program takes more shape and implements greater accountability measures. But with or without accountability measures, teacher education background may be a relevant factor.

The results of this study are not definitive about which endorsement types are most conducive to fulfilling the objectives of the course, so further analysis is needed. Endorsement type did not emerge as the most important teacher factor, but endorsement type does show something about the relevance of teachers' educational background to course topics.

*Teacher Training.* Teacher training falls into two main categories: content knowledge and teaching methods. Teacher knowledge and utilization of appropriate teaching strategies together impact what students experience in a course. An estimated 70 percent of GFL teachers advanced their preparation by attending the USOE's two to three

day GFL teacher training, which reviews each standard and objective of the GFL course and shares teaching ideas. Not all teachers attended, and those who did might not have received sufficient content or methods training.

Some teachers expressed a lack of knowledge and requested additional training on specifics such as investing, insurance and taxes. One teacher said, “I have not been trained to teach financial literacy and somebody thinks that's OK, so the class was thrown at me last minute...” Some teachers expressed difficulty “developing good lesson plans that are interesting, useful and meaningful to the students.” They believe this is due in part to the lack of consistency in curriculum and compounded by “lack of background knowledge [and] exposure...” These teachers find that “guest speakers have been helpful, but crash courses in each [topic] would help, as well as applicable ideas [including] student activities.” Compound incomplete professional development with inconsistency in program curriculum, and too many teachers are not adequately empowered to teach the course. Not all teachers feel they need additional training, but looking at the program as whole, teacher qualifications, training and accountability needs continuous improvement.

#### *Teacher Motivational Methods*

Motivation appears to have played an important role in the GFL course, so teachers are likely to enhance the learning environment by utilizing methods that best suit their personality, teaching style, topics and setting (Malouff et al., 2008). While motivational methods are especially important when students are not intrinsically motivated, some may be more important than others, and some utilized more effectively than others. At the item level, students rated some motivational methods of GFL teachers higher than other methods (see Table 8 on page 40); at the student level, some students

thought their teachers displayed high level of motivational methods while others students did not think so (see Figure 2 on page 41); and at the teacher level, some teachers received higher ratings than others (see Figure 3 on page 42). The items in table 8 are presented in descending order from methods with the highest average rating to the lowest.

Table 8

Strongly Disagree	1
Disagree	2
Somewhat Disagree	3
Somewhat Agree	4
Agree	5
Strongly Agree	6

Student N = 1131		Mean	StDv	1	2	3	4	5	6
1	Encouraged us to set and achieve goals	4.9	1.07	4%	3%	7%	16%	35%	35%
2	Had positive relationship with students	4.8	1.27	2%	3%	6%	23%	38%	29%
3	Made topics relevant to my life	4.8	1.11	2%	2%	5%	20%	40%	31%
4	Refrained from de-motivating	4.8	1.16	3%	3%	6%	20%	40%	28%
5	Modeled good learning habits	4.7	1.15	3%	2%	7%	21%	39%	27%
6	Enhanced student self-efficacy	4.6	1.15	3%	3%	8%	27%	37%	22%
7	Gave meaningful feedback	4.6	1.28	4%	5%	7%	24%	35%	25%
8	Persuaded students to learn	4.6	1.25	4%	4%	9%	24%	36%	23%
9	Used engaging teaching methods	4.5	1.35	5%	6%	9%	23%	33%	25%
10	Rewarded achievement and effort	4.4	1.31	4%	7%	11%	27%	31%	21%
11	Used appealing teaching style	4.3	1.46	7%	7%	11%	20%	31%	24%
12	Monitored student motivation and made adjustments	4.3	1.31	5%	5%	13%	23%	36%	18%
	Over all Teacher Motivation	4.6	1.26	4%	4%	8%	22%	36%	26%

The average rating for all motivational methods ( $m=4.6$ ) is between four (somewhat agree) and five (agree). Many students agree their teacher had a positive relationship with students (67 percent), used engaging teaching methods (58 percent) and had an appealing teaching style (51 percent). Many students had negative experiences regarding these items. A factor influencing the negative feedback might be that monitoring student motivation and making adjustments was the least utilized method.

The histogram in Figure 2, displays frequencies of motivation scores at the student level (ratings when all 12 items are averaged for each student). Thirty-five

percent of motivation scores were five or over (agree) and 25 percent were lower than four (disagree).

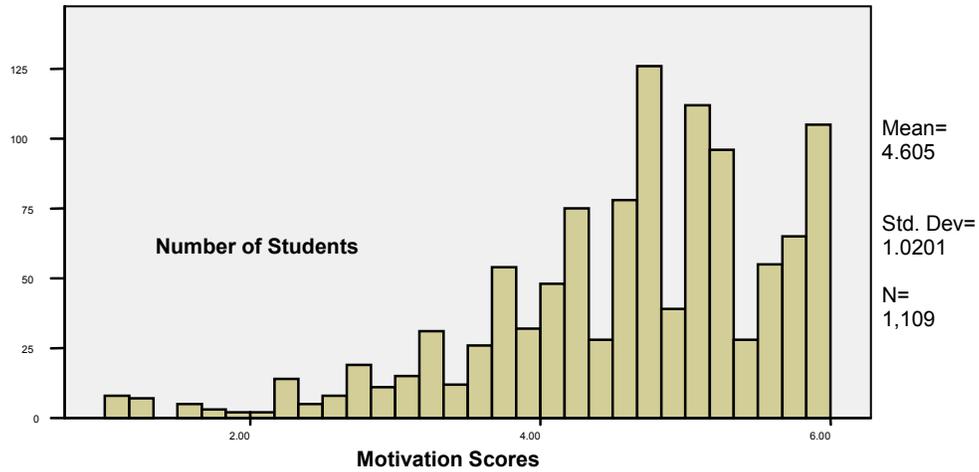


Figure 2. Teacher motivation scores by each of 1,109 individual students

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When all student scores are averaged by teacher, the data shows that motivational methods differ between teachers (see Figure 3). Thirty-six percent of teachers received a five or above by-teacher motivational score, meaning these students agree their teacher displays several positive motivational methods. Three teachers scored below four, which is a concern to those who believe motivational methods are important for this class.

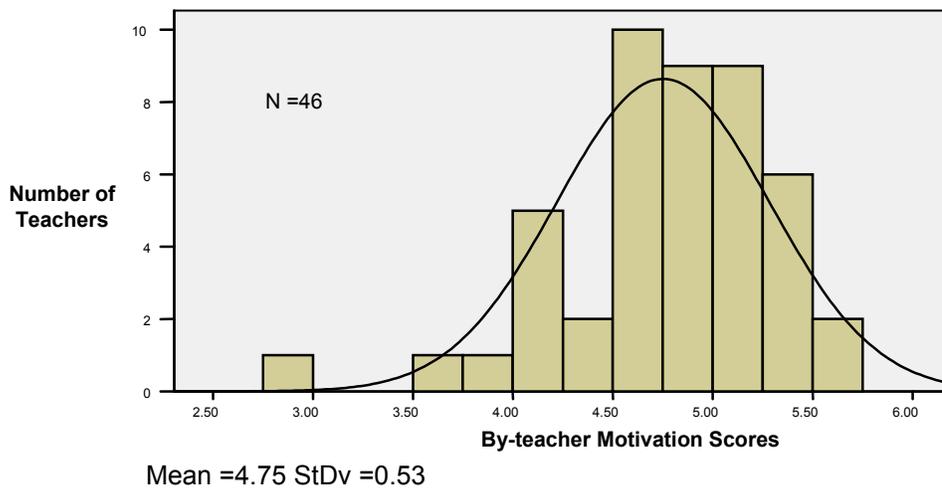


Figure 3. Teacher motivation scores for 46 teachers from averaging student ratings by teacher.

The motivational methods displayed at the item, student and teacher levels are encouraging, but these numbers suggest the program has room for improvement. Improvement is especially important if motivational methods positively impact students. Correlations between motivational methods and student outcomes, along with student responses, suggest that higher motivational methods help to make the class more successful, and lower motivational methods might actually hurt student's dispositions toward financial matters.

Motivation scores do correlate with student outcomes. Table 9 is a matrix of scores that correlate with motivation scores and with each other. Because association does not determine causation, the data in Table 9 does not determine that higher motivational methods cause desirable outcomes, but the positive correlation does show that student ratings of teacher motivational are related to ratings of other outcomes. This could be due to outside influences impacting each factor, the factors could cyclically

impact each other, or motivational methods used by teachers directly impact student outcomes. In any case, motivational methods of teachers were related to student outcomes.

Table 9					
N=1101	Motivation Score	Interesting Score	Understanding Score	Attitude Score	Behavior Score
<b>Motivation Score</b>	1.00	<b>0.61(**)</b>	<b>0.64(**)</b>	<b>0.39(**)</b>	<b>0.51(**)</b>
Interesting Score	0.61(**)	1.00	.55(**)	0.48(**)	0.47(**)
Understanding Score	0.64(**)	0.55(**)	1.00	.39(**)	0.49(**)
Attitude Score	0.39(**)	0.48(**)	0.39(**)	1.00	0.45(**)
Behavior Score	0.51(**)	0.47(**)	0.49(**)	0.45(**)	1.00

\*\*Correlation are significant at the 0.01 level

Ratings were usually consistent with open ended comments. When students rated teachers low on one or more methods, the open ended comments often addressed the lower ratings. For example, a student rated a teacher with mostly fives, but twos on “modeled good learning habits” and said the teacher “...was a fine teacher, but [...] did not really have any interest in the subject.” Another student who gave no higher than fours on any ratings and ones on “used engaging teaching methods” and “persuaded students to learn”, said their teacher “did not seem to have a passion for it. Half the class was ALWAYS asleep...” Teachers who scored high on motivational methods also received comments consistent with those ratings. Students who gave their teacher a six on “encouraged us to set and achieve goals” made comments like, “[My teacher] was always pushing us to be motivated, and wanted us to be excited about achieving our goals.” The consistency of ratings with open ended comments strengthens the reliability of the data and suggests students were generally sincere in their ratings.

Ratings combined with open ended comments suggest that teachers can play a critical role in positively or negatively influencing student outcomes. A teachers who received low ratings also received comments such as, “[The] atmosphere of the class was negative. I hated being there. I would never even try to take that class again...”, while other students in the same class said they “did not learn much.” On the other hand, students who rated their teacher highly also made comments such as, “[My teacher] really wanted to help us [prepare] for when we are on our own. Now I'm not as scared financially,” “[He/She] taught very well. I learned new things, and now I have a savings bond,” and “[My teacher] made me want to come to class, and want to learn more.” Student feedback suggests that motivational methods play an important role in the GFL course.

#### *How Interesting is the Course?*

Some students thought the class was very interesting and others thought is was very uninteresting. A variety of factors, including controllable and non-controllable factors, can influence how interesting students perceive the course to be. Factors beyond the teacher’s control may include things such as student attitude and social or cultural influences. More controllable factors include things like teaching methods, and selection of curriculum, text and topics. Students who liked the course made comments such as, “I liked the way my teacher taught. [He/She] helped us learn the material well and made it interesting.” But when asked what would improve the course, the two most prevalent comments from students were that they wished the course was presented in a “more interesting” or “more hands on” manner. Not all but many students felt the course was boring or lacked variety.

Student ratings of how interesting the course was differed between teachers, which suggests that some classrooms were more interesting than others. Teachers whose students gave low interesting ratings also received a high percent of open ended comments from their students stating that the class was not interesting ( $r=-.54$ ,  $p<.01$ ). When students were asked what would improve the course, some teachers had more than 40 percent of their students mention something about needing to make the class more interesting. Other teachers did not have any students mention this as a concern, but instead received comments like, “It was more enjoyable because [He/She] was teaching. [My teacher] managed to make something I dreaded to endure much more interesting than I expected.” Apparently, teachers do influence how interesting students perceive the course to be.

Student interestingness ratings of the GFL course alone are less meaningful than when compared to ratings of other high school classes. Students who like or dislike their other classes might be prone to feel similarly about the GFL class. To assess how interesting the GFL class is relative to other classes, students responded to the statement, “My high school classes are usually INTERESTING.” Table 10 is a summary of all student responses.

Table 10  
Interestingness

Strongly Disagree	1									
Disagree	2									
Somewhat Disagree	3									
Neutral	4									
Somewhat Agree	5									
Agree	6									
Strongly Agree	7									
N = 1205	Mean	StDv	1	2	3	4	5	6	7	
E = Elective Classes	5.93	1.1	1%	1%	1%	7%	14%	45%	32%	
			<b>3%</b>				<b>91%</b>			
R = Required Classes	4.59	1.41	4%	6%	6%	28%	27%	23%	5%	
			<b>16%</b>				<b>55%</b>			
G = GFL Class	4.31	1.79	11%	9%	10%	18%	20%	24%	8%	
			<b>30%</b>				<b>52%</b>			

The variation in ratings is greater for the GFL class than for required and electives. While 52 percent at least somewhat agree the GFL course is interesting, 30 percent disagree, which makes the GFL class rating lower than electives and required classes.

Comparing students' GFL ratings against their own ratings of required and electives further shows the relative standing of the course (see Table 11). For example, 71 percent of students gave electives a higher interestingness rating than they gave required courses, and almost as many (63 percent) rated elective higher than the GFL course.

Table 11

Interestingness Comparisons								
R>E	R=E	R<E	G>E	G=E	G<E	G>R	G=R	G<R
4%	25%	<b>71%</b>	7%	30%	63%	<b>29%</b>	35%	<b>36%</b>

When comparing the GFL class to required classes, 29 percent rated GFL higher than required courses and 36 percent rated required higher than GFL. This slightly favors required courses. Table 10 and 11 demonstrate that some students do think the GFL course is interesting, but on average it is similar to other required classes and less interesting than electives.

Many students found the course useful even if it was not interesting, but if a class is interesting, it will be more likely to capture students' attention. A typical student comment was, "Now I know how to manage my money better. It was pretty boring but I still learned a lot." Students who enjoyed the course made comments such as, "I enjoyed this class; it was interesting to me, and everyday I learned new things." And "[My teacher] has an interesting way of teaching, which catches your attention. I think I got more out of the class because of that." Students can gain a lot from the course even if they do not think it is interesting; but teachers can help students be more interested and alert, which should increase learning.

#### *How Challenging is the Course?*

Some students were challenged in positive and negative ways, while other students didn't feel challenged at all. Some GFL teachers challenged their students by expounding on meaningful but difficult concepts, others challenged their students by confusing them or giving lots of busy work, and others did not challenge their student because they covered simple topics that students felt they already understood. Many students felt the class did not require much effort. This led students to either feeling they wasted their time or that they learned a lot because the teacher made difficult and important concepts easy to understand.

To assess how challenging the GFL class is relative to other classes, students responded to the statement, "My high school classes are usually CHALLENGING (difficult)." Table 12 is a summary of all student responses.

Table 12 Challengness										
Strongly Disagree	1									
Disagree	2									
Somewhat Disagree	3									
Neutral	4									
Somewhat Agree	5									
Agree	6									
Strongly Agree	7									
N = 1205	Mean	StDv	1	2	3	4	5	6	7	
R = Required Classes	5.08	1.43	3%	4%	7%	15%	26%	34%	13%	
			<b>14%</b>				<b>73%</b>			
E = Elective Classes	4.41	1.53	5%	9%	11%	23%	27%	21%	5%	
			<b>25%</b>				<b>53%</b>			
G = GFL Class	4.19	1.66	8%	10%	12%	23%	22%	19%	6%	
			<b>30%</b>				<b>47%</b>			

Required classes (m=5.08) are rated more challenging on average than electives (m=4.41), and the GFL course (m=4.19) is rated less challenging on average than required and elective classes. Forty-seven percent of students thought the GFL course was at least somewhat challenging, but 30 percent believed it was unchallenging.

Comparing individual student ratings against their own ratings of required and electives further reveals the relative standing of the GFL course (see Table 13). For example, 52 percent of students gave required classes a higher rating than they gave electives, but only 26 percent gave the GFL course a higher rating than electives.

Table 13

Challengingness Comparisons								
R>E	R=E	R<E	G>E	G=E	G<E	G>R	G=R	G<R
<b>52%</b>	37%	11%	<b>26%</b>	43%	31%	12%	40%	48%

Not many students gave the GFL course a rating higher than required classes; and when comparing the GFL class to required and electives, the GFL course is about as challenging as electives. Table 12 and 13 combined with student comments demonstrate that some students do think the GFL course was challenging, but for many students it was

not very challenging. Students said things like, “my teacher only focused on the basic information...”, “I got sick of writing check after check everyday...balancing a check book...is something that should be relatively easy to catch on to,” and “[The class] was so easy that it seemed almost pointless.” Teachers who did not go beyond the basics bored their students or caused them to think all financial topics are simple, but other teachers did challenge their students.

Challengingness did mildly correlate with understanding ( $r=.33$ ,  $p<.01$ ), but challenging students wasn't alone enough to produce understanding. Many students said the course either had a lot of “busy work” or difficult concepts were not explained adequately. A student said that to improve the course, the teacher should “explain things better. I did not get anything out of this class that I did not know before, and I'm still very confused about money.” Another said, “Many of the students became confused, but we would just complete the worksheets and go onto the next unit.” Whether engaging students in meaningless busywork or teaching important concepts in a confusing way, challenging students does not always lead to improvement in financial understanding. While some students were challenged in a less fruitful manor, other students were exposed to challenging topics in meaningful ways.

Some students were challenged as they were pushed beyond their comfort zone to gain useful knowledge. They didn't mind when this was done in a fun way, or at least in a way that produced greater understanding. A student said, “The teacher...gave a lot of personal experiences which helped [students] connect [with] the more difficult things to understand...” Others said, “I liked how my teacher wanted me to learn...the course was not extremely easy...” and the course “was hard, but hey, it is part of life that you have to

know these things.” Students who gained the most from the course are probably those who were challenged in an interesting way, and were provided clear explanations of difficult concepts.

### *Impacts on Students*

What and how the course content is taught is likely to influence the way students think, feel and behave regarding financial matters. Students gave feedback on how the course has impacted their financial behaviors and attitudes.

### *Behaviors*

The GFL course appears to have influenced students’ financial behaviors including saving, investing, spending more wisely than before, and setting financial goals. Students commented about how this class helped them make specific decisions or take specific actions; others who did not mention specifics did say they are better prepared than before to act responsibly. Student said things like, “[The GFL course] made me finalize my decision to go to college...”, “I am looking into investing and protecting my money more than I ever have before,” and “I learned a lot about saving and being smart with money, and now I’m actually careful about it.” Not all students reported improvements in financial behaviors, but most believe the course at least mildly impacted their behaviors, and some noticed great improvements. Table 14 shows the percent of students who agree their financial behaviors have improved because of the GFL course.

Table 14

No	1
Somewhat Agree	2
Agree	3
Strongly Agree	4

Student N=1115

Because of the GFL class I NOW...	Mean	StDv	1	2	3	4
Spend money more wisely than before	2.63	1.0	16%	27%	36%	21%
Save and/or invest better than before	2.65	1.0	16%	25%	35%	24%
Have specific retirement goals	2.35	1.1	28%	27%	25%	19%
Combined Average			20%	26%	32%	21%

Most students agree their financial behaviors have improved because of the GFL class and more at least somewhat agree. Students said things like, “We had to create a budget and see if we could stay within the bounds. It really helped me stop spending so much on food,” and “It was very good for me. It helped me get some savings started for college.” Many of the students who did not express improvements were already acting financially responsible before the course. The following is a summary of all student responses to the statement, “BEFORE taking the GFL class I...”

Table 15

N=1101	Yes, and I do now	Yes, but I do not now	No, and I do not now	No, but I do now
Regularly added to my savings and/or investments	56%	7%	17%	<b>20%</b>
Had a savings and/or investment account	70%	4%	15%	<b>11%</b>
Had more than \$100 of debt	6%	5%	82%	7%
Had specific financial goals	50%	6%	14%	<b>29%</b>

Five percent of students eliminated previous debt during the course, but seven percent acquired \$100 or more debt. Six percent had debt before and haven’t eliminated it, so at the end of the course 13 percent of high school students had some debt. This may or

may not be an alarming number, but for these students it is movement in the wrong direction. Conversely, 20 percent did not regularly add to their savings but do now, and 11 percent have set up a savings and/or investment account during the semester. Of the students who did not have specific financial goals, 67 percent now do. The short and long term impact on financial behaviors is difficult to measure, but the data suggests the course does have a positive influence on financial behaviors.

### *Attitudes*

Attitudes are difficult to change, but perhaps the GFL course can influence students' thoughts, feelings and actions toward continuing their financial education. Student attitude scores do mildly correlate with factors such as teacher motivation ( $r=.39$ ,  $p<.01$ ) and interestingness ( $r=.48$ ,  $p<.01$ ), which suggests that the classroom environment might influence students' attitude toward continuing their financial education (see Table 9). Possible explanations for the correlation might include, students with high attitudes toward financial education are already interested in learning about it; or when the topics are presented in an interesting manner then students are likely to increase their attitude toward learning more. Student attitudes may in turn impact classroom environments; and surely other factors such as the media, cultural influences and attitude toward education in general, influence student attitude and the classroom environments.

Students usually rated the *importance* of continuing financial education higher than whether it would be *enjoyable* or whether they *plan* to (see Table 16). The following are the average ratings of all students on a scale from one (strongly disagree) to six (strongly agree).

Table 16

Strongly Disagree	1
Disagree	2
Somewhat Disagree	3
Neutral	4
Somewhat Agree	5
Agree	6
Strongly Agree	7

N=1101	Read	Watch	Attend	Average	St Dev
	Financial	Financial	Financial		
	Books	Programs	Class or Seminar		
I believe it is important to	4.69	4.82	4.75	4.75	1.51
I plan to	3.84	4.11	3.87	3.94	1.80
I would enjoy	3.55	4.09	3.93	3.86	1.74

The variability of by-teacher attitude scores indicates differences by teacher (see Figure 4), which would not be expected if teachers started with similar groups of students and all teachers had similar influence on students. The semester either started with variations in levels of student attitude, or something during the course impacted student attitudes, or both.

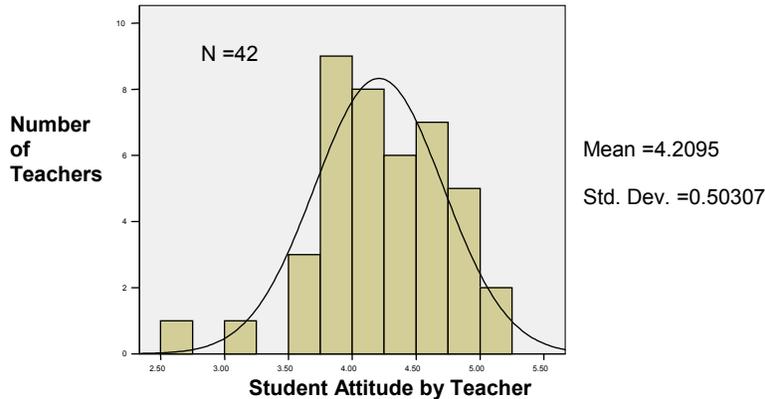


Figure 4. Student attitude by teacher at the end of the GFL course

Indicators, including open ended comments from students, explained that teachers on the low end did have classrooms with “difficult students.” In one of these classes the teacher “had to deal with a lot of problem children and did it fairly well.” So, teachers

probably did start with variations in student attitude, but other indicators suggest teacher and course differences may impact attitude.

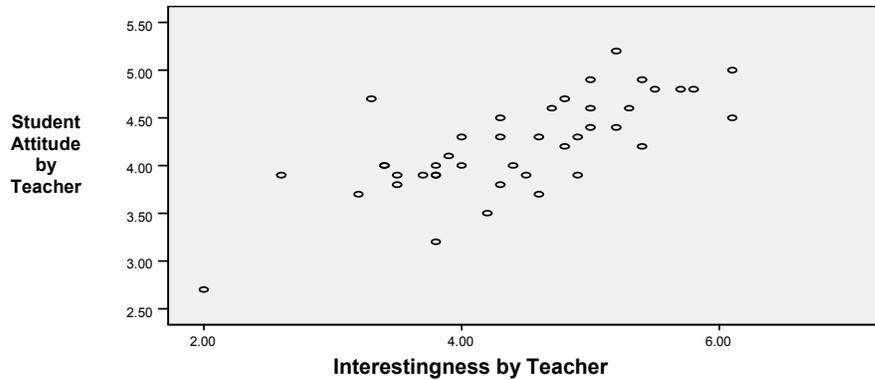


Figure 5. ( $r = .728$ ,  $p < .01$ )  $N=42$ . Attitude appears to correlate with how interesting the course is

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Attitudes are difficult to change, but a quality classroom experience may positively contribute to students' financial thoughts, feelings and actions; conversely, a negative experience might negatively impact attitudes toward continuing financial education or implementing financial principles. Some students commented that the course empowered them to learn more and gave them the desire to do so. One such comment was, "I started thinking more about money and asking my dad questions that I usually would not if I had not taken the class." While it is difficult to influence attitudes, the GFL course appears to have made some impact on student attitudes toward continuing their financial education.

### Discussion

The new GFL course requirement for graduation has been met with great enthusiasm as well as some skepticism. Given the current state of the program, both

viewpoints are understandable. The question of whether the goals of the program (*as stated on the USOE financial literacy course website*) are being met is answered by recognizing immediate, praiseworthy successes and simultaneously acknowledging needed improvements. Overall, the course has helped many students to *define career and financial goals* more clearly than they had before, while many other student have not made much progress. Assessments designed around specific learning objectives would be necessary in order for students to *demonstrate understanding of financial planning and money management skills*, but many students feel they have learned valuable information and developed important skills; at the same time, some students feel they have not. Many students have expressed that the course helped them to better *understand the consequences of financial decisions*; others students do not think they understand any better than before taking the course. And a longitudinal study could help to determine the extent GFL students *accept responsibility for* their financial decisions and act accordingly, but the results of this study suggest that many students have made immediate improvements while others have not. The polarity of the GFL course outcomes appears to be influenced by combined attributes of students, teachers and administration.

Teachers and administrators have each made rapid progress in the early stages of the program, but each should strive to improve the developing program. Some teachers are passionate about the course and are well prepared; others are not. Some districts are organized and have a representative for the GFL program, have a supportive network and contact with the Jump\$tart organization; too many districts do not have these established. Teachers and administrators have in many ways helped students progress toward

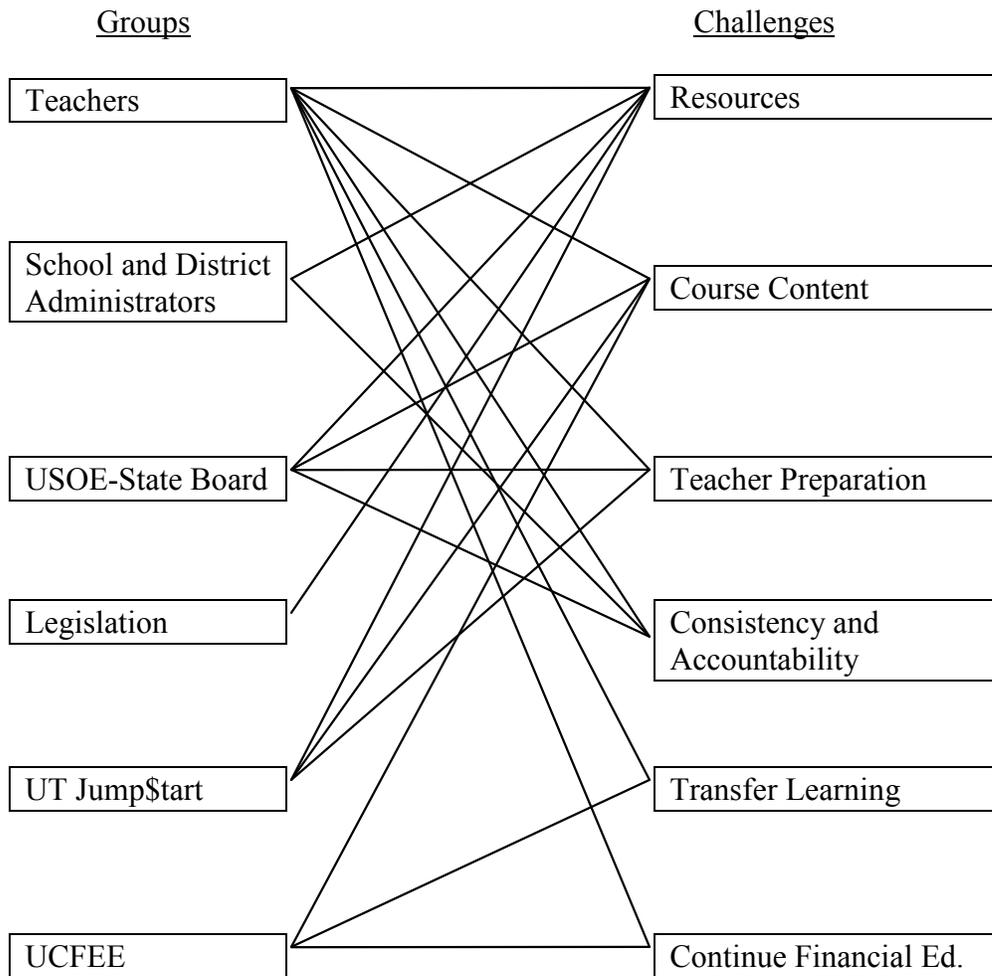
achieving the goals of the program, but the large and sudden growth of the program has presented challenges.

While the program does have great potential for positive influence, it is new and is confronted with challenges of its infancy. The success of this program will be determined by how well these challenges are overcome. The challenges of the GFL program include assuring prudent selection of **course content** including topic prioritization and emphasis, improving access to and selection of effective **resources**, escalating teacher **preparation**, establishing consistency and **accountability**, assisting students to **transfer** what is learned in the classroom to real-life settings and encouraging students to **continue their financial education**. Some of these challenges will naturally work themselves out as teachers gain more experience teaching the class, while others should to be addressed directly with a coordinated plan of action based on a cost-benefit analysis.

#### Recommendations

The following recommendations for the GFL program are based on the results of this study and a cost-benefit-analysis. In the researcher's view, teachers, administrators and the community must coordinate their efforts in order to overcome the challenges of and achieve the greatest level of success in the emerging program. Figure 6 is an illustration of the role each group plays in a coordinated effort. The recommendations are also intended to collaborate with the mission and social marketing campaign of the recently formed Utah Council on Financial and Economic Education (UCFEE).

Figure 6.



## *Recommendations by Group*

### *Teachers*

1. Provide students with a mnemonic device or concept map that captures the breadth of financial literacy (See pgs 9-10).
  - a. A mnemonic device, concept map, course outline, song lyrics, gadget or acronym revisited throughout the course to illustrate a framework for building financial knowledge upon during and after the course.
  - b. A sample of a concept map and acronyms can be found in appendix H and at [gflteacher.com](http://gflteacher.com).
  - c. A student mnemonic or concept map contest, called "Financial Idol", will be hosted at [gflstudent.com](http://gflstudent.com). Please encourage your students to participate (possibly as a class assignment); and thereby, help them strengthen their mental framework of financial concepts, while sharing with students all across Utah.
2. Provide meaningful depth of coverage for prioritized topics that will promote enough understanding to enable transfer to real life application (See pgs 10-12).

3. To help students improve their financial knowledge, attitudes and behaviors, utilize motivational methods that are conducive to your personality and teaching style (see page 43-44).

This table of motivational methods is derived from table 8 on Pg. 40

1	Encouraged student to set and achieve goals	Teachers and students can help each other set and achieve goals
2	Have a positive relationship with students	Smile, it feels great!
3	Make topics relevant to your student's lives	Challenging but you can do it!
4	Refrain from de-motivating	Provide a safe learning environment
5	Model good learning habits	Hey, you'll learn some good stuff too
6	Enhance student self-efficacy	Success is the greatest motivator
7	Give meaningful feedback	
8	Persuade students to learn	
9	Use engaging teaching methods	"Hands on" and brains on activities
10	Reward achievement and effort	Praise is as good as candy
11	Use appealing teaching style	Have fun!
12	Monitor student motivation and make adjustments	(See recommendation #4)

4. Establish an effective method for monitoring student motivation, then make adjustments according to the feedback.
  - a. To save teacher's time and make it easy to get effective student feedback, the researcher will provide a condensed version of the survey instrument developed for this study at [gflteacher.com](http://gflteacher.com).
  - b. The first 30 GFL teachers who visit [gflteacher.com](http://gflteacher.com) and select the "Get Student Feedback" link will receive a free surveymonkey.com account setup with a developed student survey.
5. Ask questions to and share ideas and resources with other teachers in your school and district. Visit the GFL teacher forum found at [gflteacher.com](http://gflteacher.com), and strengthen the statewide network of financial educators like you.

*Utah State Office of Education*

1. Establish consistency and accountability
  - a. Give the GFL course a home- Career and Technical Education (CTE) is probably best.
  - b. Obtain feedback from students, teachers and district representatives and help teachers advance the program based on the feedback. A system of student surveys that provides feedback to teachers and administrators will likely provide the biggest bang for the buck. A pilot program could be implemented to prove this concept.
  - c. Identify a few prioritized topics to be learned by all students and around which to focus professional development and assessments.
  - d. Develop a standardized knowledge assessment. This is a long-term goal because of the cost and time required for development.
2. Provide ongoing professional development, especially for new teachers. The GFL course has had a fairly high teacher turnover rate (about 50% from 2008-2010).
3. Help students go beyond the basics if they desire
  - a. Incentives for the passport program
  - b. Options for advanced placement

*District Administration*

Appoint a financial literacy representative at the district level to:

1. Establish meaningful GFL teacher collaboration within the district. Some districts have organized the GFL program to offer support and help teachers share ideas and resources.

2. Support a feedback system that ties the statewide GFL program together into one cohesive network.
3. Help teachers bridge K-12 financial education with the required General Financial Literacy or Adult Roles courses.
4. Connect teachers with resources and guest lecturers by establishing a partnerships with the Utah Jump\$tart Coalition and the Utah Council on Financial and Economic Education (UCFEE).

#### *Utah State Legislation*

1. Fund professional development
2. Fund assessment development

#### *Utah Jump\$tart Coalition*

1. Help teachers sort through, select, and obtain effective teaching resources. Advance and promote the Jump\$tart national clearing house based on the Educational Materials Review Checklist.
2. Coordinate guest lectures in the classroom. Expand and maintain a speaker's bureau through a well designed, easily-maintained, online database and communication system.

#### *Utah Council on Financial and Economic Education (UCFEE)*

1. Develop a web portal to gather numerous financial education advocates and connect them with financial students in all life stages.
2. Launch the "Believe" social marketing campaign using motivational messaging to promote financial prudence.

## Limitations of the Study

### *Selection Bias*

While the information obtained in this study appears to be representative of the Utah, GFL program, a selection bias may influence the data if something caused the sample to not accurately represent the current or theoretical population of all GFL teachers and students in Utah. For example, teachers and students participated for different reasons, and the incentives or lack of incentives may have been different for different types of volunteers. The teachers who participated scored fairly high on motivational methods (see Figure 3), and many received positive comments from students. This may be because most GFL teachers in Utah would score high, or it may be that the highly motivational teachers were also the ones motivated to participate.

One possible cause for a student selection bias might be that students received extra credit for participating. A barrier to receiving extra credit included having parents sign a permission form. This greatly reduced student participation, and resulted in a different sample than otherwise would have participated. Perhaps students were motivated by extra credit, intrigue, social pressures or other incentives. Students are motivated by extra credit either because they needed it or want to ensure a high grade. These polar reasons helped to get a sample of students of varying academic performance. The types of students who are motivated to excel or who saw it as an easy way to get points were each willing to overcome the barrier of getting parent permission and taking the time to complete the survey. Students reported their GPA and the frequencies displayed a non “normal” distribution skewed toward higher GPA’s, implying that either

the grading system in high schools is inflated, students rated themselves favorably, or students with higher GPAs were more likely to participate.

Time and resources made pre and post course assessments unfeasible; therefore the study does not have the benefits or threats associated with pre-post designs, but a concern is the loss of potential participants who drop out after giving consent or receiving parental consent. Of the 73 teachers who gave consent to participate, 58 took the survey, and 39 had their students complete the survey. Some teachers and students began the survey and didn't complete it.

#### *Incomplete or Inaccurate Self-Report*

The researcher believes that most responses were thoughtful, sincere, and accurate, but a small portion of teachers and students did not complete the surveys, or completed them with little effort. Other participants may have answered questions incompletely or inaccurately in order to portray themselves well, even though participation is anonymous. This is a concern for self-report measures. Student ratings of teachers helped overcome this to some extent, and most of the open-ended comments appear to be honest reflections of the program and the participants.

#### *Mono Method and Mono Operation*

A mono-method threat is a concern, especially since it is based on self-report. Information was gathered from multiple sources, but the majority of the data was acquired from a single type of measurement (survey) and only one form of two instruments (teacher survey and student survey). Many of the questions in the survey produce accurate information and were examined for internal consistency, but one of the largest concerns in this study is accurate representation of topics covered and time

allocated to those topics. Exact number of topics and exact amounts of time on each would greatly strengthen the accuracy of the content coverage analysis. To determine exactly what happened every day would be more accurate but impractical. Many teachers in high schools do not have a course calendar (or syllabus); this may be because teaching the course was still new for many teachers, so they might not have the full year planned in advance.

## Appendix

### Appendix A-Text, Reading Books and Curriculum

“No text used”  
NEFE student workbook  
Financial Literacy (Glencoe),  
Managing Your Personal Finances  
Dave Ramsey Books  
Robert Kayosaki  
Richest Man in Babylon  
The 4 laws of debt free prosperity & Financial  
Literacy for teens  
Economic Education for Consumers  
Automatic Millionaire (David Bach)  
Next generation insuring your future (student  
workbook)

Excerpts from  
Leon Uris Trinity  
The Money Game (David Barker info),  
Federal Reserve Publications (credit,  
banks, money, etc.)  
Motley Fool Investment Guide for Teens  
Money Mastery  
Housing Decisions (for unit on purchasing  
housing)  
Personal Finance: Turning Money into Wealth  
10 Principles of Money Mastery

### Appendix B-Websites

“Too many to mention”  
“None”  
FEFE - Family Economics and Financial  
Education  
NEFE  
Dave Ramsey.com  
"Live Career" and other job aptitude sites  
www.bls.gov,  
utahmentor.org  
Compare bank websites  
BankHS.com  
yahoo finance, google finance (and others)  
irs.gov  
mysavingsquest.com  
practicalmoneyskills.com  
Utah Mentor  
Money Talks  
Jumpstart Coalition  
Consumer Jungle  
My pyramid.gov  
On-line calculators  
Attorney Generals website on ID Fraud  
PBS.org  
www.smgww.org  
practicalmoneyskills  
moneychimp  
ZionsBank  
AARP.org  
http://personal.fidelity.com  
marketwatch.com  
irs.gov  
Bank High School  
NYSE,  
CNN Money  
UtahRealEstate.com

arizona.org  
msnmoney  
bankrate.com  
http://www.mpc.edu/cl/cl.htm  
bls.gov  
www.consumerdebit.com/consumerinfo  
www.1728.com/compint.htm (Compound  
Interest Calculator)  
http://cgi.money.cnn.com/too  
http://www.capitalo  
vse.marketwatch.com (virtual stock exchange  
game)  
feedthepig.org  
Cost of living comparison sites  
bankrate.com  
bestplaces.net  
cgi.money.cnn.com  
cityrating.com  
fakechecks.org  
usps.com,  
utahsaves  
americasaves  
econdlink.org  
http://money.cnn.com/magazines/moneymag/mo  
ney101/  
http://www.consumerjungle.com/  
clarkhoward.com  
CNN Money  
www.virtualstockexchange.com  
bankrate.com  
realtor.com  
kbb.com  
autotrader.com  
geico.com  
bankhs.com

uen.org  
MoneySkill.org  
Practicalmoneyskill.org  
KBB.com  
www.financialcalculators.com  
www.utahmentor.org  
www.smartstocks.com  
ksl.com  
http://hsfpp.nefe.org  
www.utah.gov/employment  
www.practicalmoneyskills.com  
www.bls.gov  
www.efunda.com  
fefe.arizona.edu  
Utah State University Website  
www.careers.com

Stocksquest.com  
wellsfargo.com/handsonbanking  
Allstate.com  
Consumer Reports  
Carfax.com  
monster.com  
iihs.org (insurance institute)  
kbb.org  
http://hsfpp.nefe.org/home/  
Access Bridges,  
Hands On Banking,  
lifein- university of Montana,  
Dave Ramsey  
Stock Market Game World Wide  
www.virtualstockexchange.com

### Appendix C-Software (Games or other Programs)

“None”  
Microsoft Office (Excel, Word, PowerPoint)  
    Budget using Microsoft Excel  
    PowerPoint version of Jeopardy  
    FEFE Power Points  
Stock market game- www.smgww.org  
WISE practice tests  
Market watch-stock market game  
    Winners in each class period receive a  
    \$50 U.S. Savings bond  
    http://vse.marketwatch.com/Game/Find  
    GameHighlights.aspx,  
National Literacy Challenge Test

Checkbookease  
Financial Football  
Money Mastery  
Text book testing software  
Quicken  
Quickbooks  
Turbo Tax  
Utah Educational Network and Utah Financial  
Literacy programs  
"Price is Right" game  
Wells Fargo hands on banking  
lemonadestandgame.com

### Appendix D-Non-software Games

Monopoly  
The Game of Life  
Deal or no Deal  
Pay Day  
Jeopardy  
Twister  
Bingo  
Races  
Jumbling Towers review game  
Stock Market Games  
Who Wants to be a Millionaire?  
“games learned in the state training”  
“learning games for review”  
Pay Day  
FEFE Monopoly game  
FEFE Life game  
FEFE Bean game  
FEFE Types of Insurance Game  
Pit  
ARFL curric

Ball toss (expenses increase stress)  
Skittles game (household budgeting)  
M&M world resource allocations  
\$2 fortune  
Crossword Puzzles  
Talking with parents about financial matters such  
    as insurance, tax, and the condition of  
    the economy.  
Taste tests  
Snow flake Productivity  
Poor Purchase Parade  
Millionaire quiz  
Parent corporation game  
Cashflow 101 (Rich Dad, Poor Dad)  
Twister  
Acquire  
American Trade  
Money Matters  
Stock Market Tycoon

Money Habitudes

Mutual Mania

Appendix E-Video/Audio

“Too many to mention”  
“None”  
Suze Orman series,  
Historical/economic videos talking about events  
Dave Ramsey High School curriculum  
The Stock Market  
Food Shopping  
CNN  
Dateline  
Diet Ads Video  
Identity Theft  
30 Days,  
Millionaire Next Door Book on Tape  
The Secret History of the Credit Card,  
A Penny Saved,  
ID Theft,  
Budgeting Basics,  
Affluenza  
Secret History of the credit card  
Rich Dad, Poor Dad- Robert Kiyosaki  
Buffett and Gates go back to school  
The Great Depression  
Video clips from dateline, insurance & credit videos  
Stockmarket adventure  
Dave Ramsey --Financial Peace for the next generation  
CDs and workbook designed for High School Students  
Demystifying the Stock Market, News Reports  
US postal inspectors videos  
Oprah's Debt Diet Series,  
"Rudy"  
Next Generation insuring your Future  
Ka-ching by Shania Twain  
PBS Frontline Credit Cards  
30 Days (On minimum wage)  
KSL news broadcast on bankruptcy  
Assorted commercials;  
Small Fortunes;  
Investigative Reporter presentations on taxes; bankruptcy  
Stock Market basics,  
Nouveau Poor,  
Identity theft,  
Supermarket Persu.,  
Shania Twain – Caching  
Avoiding the Credit Card Monster,  
Perils of Plastic,  
Rudy (goals),

Next Generation (Insurance)  
"Greed" and others in that series  
9/11 Fed Response  
Identity Crisis,  
All the Right Stuff,  
In Debt We Trust,  
Life Skills: Financial Fitness for Young Adults Series,  
Risk Responsibility Reality (insurance scenarios),  
Money Pit excerpt  
Dollar & Sense Videos,  
Internet Videos  
Chad Foster,  
Sicko  
The net (ID theft)  
Mr. Holland's Opus (changin values)  
Emedia  
Scam Videos  
Limited Liability Players  
Catch Me if you Can  
"Financial Peace for the Next Generation" by Dave Ramsey  
Videos from the Pioneer Library  
Secret History of the Credit Card,  
Challenging the Debt Industry,  
Ordinary People doing Extraordinary Things  
Channel 5 Report  
Minimum Wage for 30 days  
KSL news clip about bankruptcy from 2005-06.  
Power Point from USOE workshop '07.  
Pursuit of Happiness  
MASH  
Everybody Loves Raymond,  
Identity Theft,  
How Money Grows, etc.  
Gambling Video  
Stossel videos,  
"Is America #1?"  
"Greed"  
UEN and clips from YouTube,  
Learning Seed Videos,  
Clips from Popular movies  
Blank Check  
9 to 5  
Insurance Video  
KSL Nouveau Poor Report,  
ABC Good Morning America clips  
Financial Fitness – Zions Bank  
Dollars and Sense video series

## Appendix F-Assignments, Projects and Fieldtrips

### Field Trips

- Credit Union Tour
- Banks
- Financial Literacy Expo at UVSC
- Budgeting seminar sponsored by Active Reentry
- Student presentations on various topics
- Citibank College/Financial planning calendar
- Current events—
  - Newsweek, SLTrib and Deseret News, NPR reports, PBS Nightly Business News, wall street journal classroom edition
- Group projects, activities and presentations
  - “group skits and oral reports ... helped me learn”
- Role play
- Solved story problems
- Completed worksheets and packets
- Students complete unit packets on:
  - Financial Planning, Careers, Money Management, Budgeting, Savings and Investing, Consumerism.
- Students must earn \$500 in participation money by completing a variety of projects they can choose from.

- Checkbook register
- Checking & reconciliation forms,
- Check writing
- Discuss and write goals
- FAFSA application
- Career research
- Live job interviews held for each student in class
- Resume writing
- Writing a will
- Talk to parents about insurance, home budgets, investments and other topics
- Interview parents and others
- Westridge City (fill out checks for fantasy rent, insurance, and utilities)
- Internet searches
- Stock Market Research
- Stock Market Journal
- Internet research reports & summaries,
- Amortization schedules,
- Posters
- Goal collage
- Compounding returns activity
- Fill out tax forms (including IRS EZ1040 form and instruction booklet)
- Real checks and registers provided by America
- Stock quotes
- Finding apartments,
- Credit Card Comparison

- Cost of living index,
- Research insurance costs,
- Research investment types,
- Find different types of interests,
- Practice rule of 72
- Oral reports,
- Book assignments
- NEFE workbook
- From FEFE: Collage about me, Menu and grocery shopping, Budget simulation (part of LIFE IN)
- "life in the US" budgeting simulation from FEFE
- NEFE High School Planning Program workbook assignments
- Family Budgeting
- 50 Financial Pitfalls 3 page paper
- Financial Institution Research and Comparison,
- Flash cards
- Create Resumes
- Lots of busy work
- Tons of pointless worksheets
- Vocabulary Quizzes
- Consumer Products Research,
- Housing and Automobile Comparison
- 150 assignments that target all of the Standards and Objectives of State Curriculum
- Notebook--portfolio kept all semester
- Insurance Poster
- Comparison shopped for jobs and apartments.
- Analyzed purchases/leases from a Rent to Own furniture store.
- Students kept spending logs.
- Essays (my philosophy of money, consumer society, pros and cons of debt)
- Seniors Can Save (save change in a can),
- cookie monster (taxes and gross pay),
- baby food jar prizes for cost of children,
- retrenchment (live within means)
- Assignments from the text book
- Interviews
- Food purchase planning- 3 day activity
- Adult's Dumbest Money Mover,
- Frauds and Scams assignment,
- researching and buying a home and automobile
- Calculate current lifestyle cost,
- resumes,
- mock job interview,
- tax case studies,
- Surveys,
- Bank Shopping
- Students create PowerPoint presentations
- Students complete a “financial profile”
  - includes job options,
  - essay concerning future financial goals,

and a budget using Microsoft Excel  
 making own commercial,  
 scavenger hunts,  
 Bankruptcy typewritten report,  
 Banking simulation keeping a check register for  
 2 months, and completing 2 mo. bank  
 reconciliations. Prepare a personal budget.  
 SMART Goals

Career Exploration,  
 Consumerism Lab,  
 Student Presentations on Advertising Techniques,  
 Insurance, Budgeting activities,  
 Banking/Checking Activity  
 Read at least one financial book  
 computer activities

### Appendix G-Guest Lectures

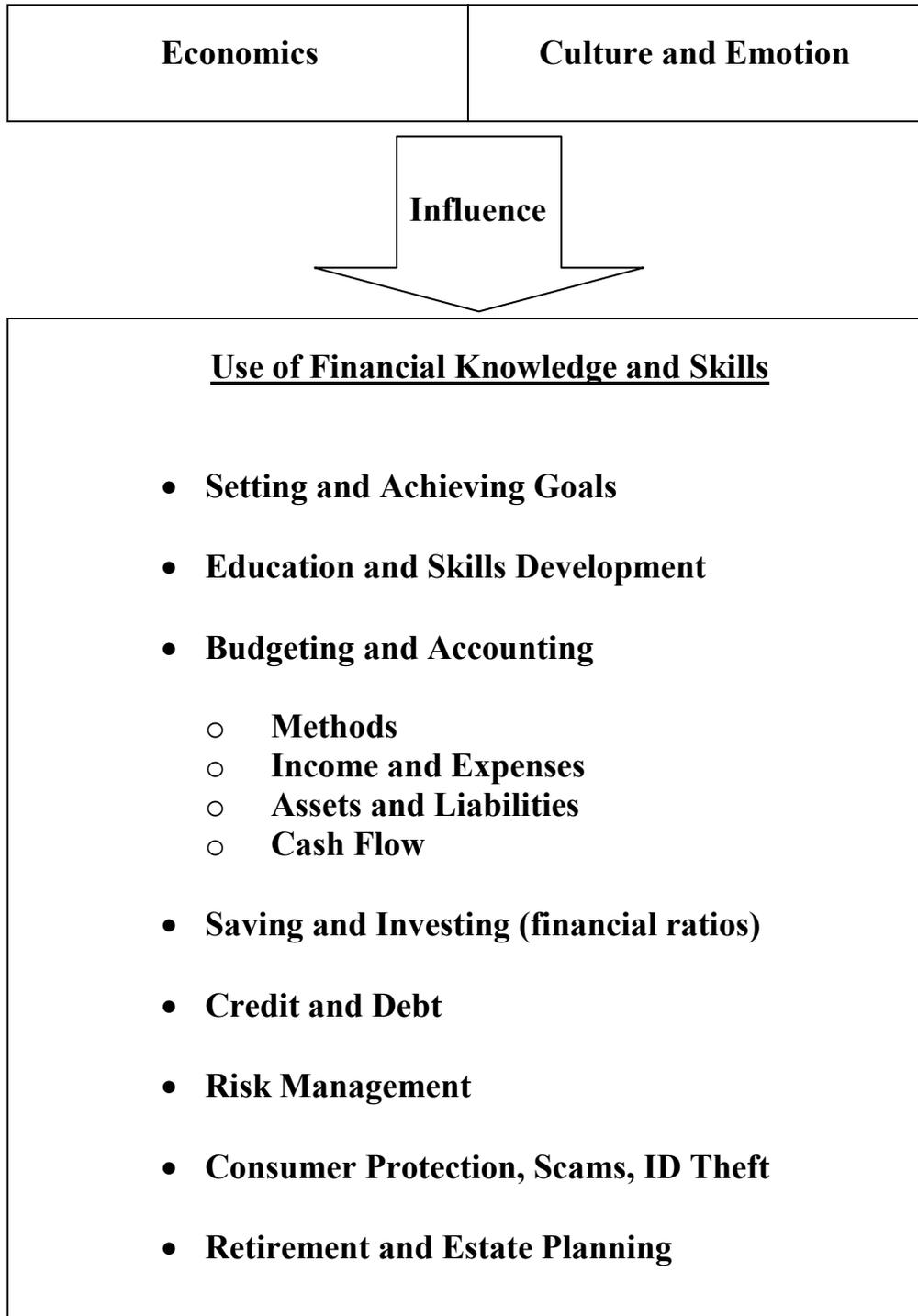
Teachers used from none to 9 guest lecturers with backgrounds and covering topics that include:

“None”  
 Bankers,  
 Credit reports  
 Utah Mentor representative,  
 Financial planners,  
 Investment brokers,  
 Mortgage lenders,  
 Social Healthcare  
 Financial Councilors,  
 Successful Business Owners  
 VP of investments at UBS  
 Bank Evaluator  
 business community  
 America First education dept - money matters,  
 America First CU loans - understanding credit  
 reports,  
 Identity Theft (Mt. America CU),  
 Career vs. Education (Eagle Gate),  
 CARE Program (Debt)  
 Stevens Henagar College - goals and values  
 Education Director,  
 America First Credit Union spoke on Credit  
 (good and bad)  
 Mountain High Credit Union Employee  
 identity theft,  
 one on the stock market,  
 CPA  
 Mortgage Industry  
 State Mentor,  
 State Financial planning,  
 Fin. Savings broker  
 Zion Bank  
 Financial Consultant,  
 USU Extension Financial Counselor,

income tax preparer  
 Investment speakers  
 Utah Dept. of Financial Institutions  
 health insurance  
 Credit Union  
 Attorney,  
 Software Engineer,  
 Marketing,  
 Sportscaster,  
 Professional Athlete,  
 Educators  
 Identity Theft - Mountain America  
 Investment advisor  
 Realtor  
 Alpine Credit Union  
 Art Institute  
 Zions Bank Manager (money management  
 principles),  
 Utah Career College Representative (budgeting),  
 Mountain America Credit Union (Identity Fraud),  
 CFP,  
 MBA Financial Consultant (Investing)  
 Licensed Insurance Agent (Insurance)  
 Edward Jones-Investments  
 ID Theft Investigator  
 H&R Block  
 Loan officer,  
 Insurance salesman  
 Car salesman  
 UCCU  
 Bank employees  
 Career planning  
 Police (ID Theft)



## What is Financial Literacy?



## **What is Financial Literacy?**

### **Use the BASICS**

#### **BASIC**

- Budgeting
- Accounting
- Spending Wisely
- Investing
- Credit

### **Smart GEECs use the BASICS for RnR**

#### **GEEC**

- Goals
- Education/Skills
- Economic environment
- Cultural and emotion

#### **BASIC**

- Budgeting (plan)
- Accounting (monitor the plan)
- Spending efficiency
- Investing
- Credit building (truths and myths)

#### **RR**

- Risk Management
- Retirement

### **Like a Goose that Lays Golden Eggs**

#### **Residual savings (residual earnings) comes ESSI**

- Earning (work for money)
- Savings as a Ratio of Earning
- Spending Efficiency
- Investing (have your money work for you)

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