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SPSS Analysis of Financial Literacy

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Abstract

Financial education has been a complex issue among society today. Often, it has been found that low-income communities are uninformed of the steps they can take to maximize their monetary goals. This gap in healthy financial behaviors in comparison to Caucasians particularly affects minority groups. Throughout the 5 years, researchers have examined the effects of piloting culturally sensitive workshops to low-income minority communities to promote healthy financial behaviors. The culturally sensitive workshops discuss the following: Money management, social security and retirement, and credit and insurance. The data collection came from years 1 to 5 through grant research at a plethora of different seminars and workshops. Although many of the activities at workshops were similar, pre- and post-test were different. When finding similarities between the different tests there was consistency among only demographics. Each year, there were four demographics present in each workshop held. These demographics included gender, age, income, and race. Fellows transposed the demographic information from each seminar across the 5 years. After completing each individual year, the data were then consolidated to provide total sums per each year. Descriptives, frequency, t-test, and mean test were ran in SPSS to receive a full analysis of the information captured.

Keywords: Financial; Education; Low Income; Money Management; Social Security and Retirement; Credit; Insurance

1. Introduction

Financial literacy is the foundation for making healthy decisions that will affect our stability in the future. Members of the low-income community of the Hampton Roads area can feel overwhelmed of how they can provide for their family in the short term as well as long term. The feeling of being overwhelmed often stem from lack of knowledge. Although there are a number of investment and saving opportunities as well as loan options, those lacking in financial knowledge are highly equipped to make poor financial decisions, which can be a roadblock for them in the future. Examples of poor financial decisions include investing all assets in one household, holding stock only at the place they currently work for or possessing low-interest yielding saving deposits. We investigated the impact of conducting workshops within these low-income communities about various aspects of financial literacy. This study investigates if teaching financial literacy in low-income communities through facilitation of culturally sensitive workshops and the use of active learning strategies will result in an increase of financial literacy in the following topics: Money management, social security and retirement, and credit and insurance.

2. Literature Review

Understanding financial literacy is beneficial to any individual to maintain a sustainable life. Comprehending how to properly obtain and disperse of finances leads to not only a progressor economy but also happy spenders. Sadly, it has been proven that not all citizens have the proper financial literacy

to effectively operate in today's economy. Financial literacy, as defined by the National Financial Educators Council, is possessed the skills and knowledge on financial matters to confidently take effective action that best fulfills an individual's personal, family, and global community goals (The National Financial Educators Council, 2013). The Government Accountability Office defines financial literacy as the ability to make informed judgment and to take effective actions regarding the current and future use and management of money. It includes the ability to understand financial choices, plan for the future, spend wisely, and manage the challenges associated with life events (Cackley, 2014). These two definitions of financial literacy require the skill set and knowledge of financial topics for an individual to make informed decisions and take effective actions with personal finances. Individual perceptions, modifying factors (demographics, media influences, institutional trust/mistrust, etc.), and financial decision-making contribute to one's confidence of financial literacy (Beale et al., 2015).

With the U.S. having such a consistently dynamic economy, educating individuals on financial literacy improve the economy through achieving financial inclusion. The U.S. households on average are 75.1% financially knowledgeable, but 59.8% have poor financial planning skills according to Alenhawi and Ekhel, 2015. Naturally, financial knowledge levels tend to be higher for more-educated consumers and lower for low-income consumers based off of resources to achieve education (Collins, 2010). The more financial literate individuals there are more opportunities are available. These outcomes can potentially lead to building up low-income communities with opportunities and that are needed to ensure healthy financial stability in the long run.

3. Methodology

Although financial literacy is a long-term process, financial education is an action that can be applied instantly. Miley (2008) states that adults learn more effectively when trainings have relevancy and immediate application, are presented in a collaborative and varied format, and coincide with their particular life stage, culture, and learning style. Past methods of promoting financial literacy to adults in recent work by Lusardi and Tufano (2008) which calibrates and simulates a multiperiod dynamic life cycle model where individuals not only select capital market investments but also undertake investments in financial knowledge. This extension is important in that it permits the researchers to examine model implications for wealth inequality and welfare.

Throughout the 5 years at each workshop, the researchers aimed to advertise the culturally sensitive workshops to minority groups who had potential interest in increasing their knowledge of financial education. Specifically, participants were recruited from two local communities within the Hampton Roads area. The participants often resembled African-American men and women aged 50+.

Initially, the researchers formed a relationship with housing authority employees to network and introduce the aim of the research regarding financial education. By forming these new relationships, the researchers were able to begin utilizing paper advertisements and going door-to-door to recruit potential community participants. The paper advertisement sought to enhance participation among community residents by promoting the impact of financial education as well as promising incentives. Following on, the setting of part one and part two of the culturally sensitive workshops is held at community centers provided by the housing authority employees.

On entering the community center, all participants are required to sign into support documentation for the research. Moreover, part one of the workshop begins with the researchers providing the participants with a pencil, financial education pre-test, and a raffle ticket that enters them in a drawing for an incentive. The pre-test assesses topics money management, social security and retirement, and credit and insurance. After the completion of the pre-test, the researchers collected all materials. Subsequently, the researchers conduct an informational session utilizing a PowerPoint presentation. The PowerPoint presentation relates to the pre-test and post-test questions, respectively, providing examples and tips regarding saving, budgeting, insurances, and wills. During the presentation, there are specific handouts in which the aiding researchers provide credit bureau and legal aid handouts are given to the participants. In addition, there are several slides in which the participants are able to draw their raffle tickets to earn a chance to win a Walmart gift card. Once the presentation is complete, the researchers

utilize a post-test that is identical to the pre-test to assess any statistically significant differences of the participants financial knowledge. Once the post-test is complete, the researchers collect all materials. Finally, the participants are given a dinner and thanked for their time. As for part two of the culturally sensitive workshop, the procedure remains the same; however, the PowerPoint presentation requires active learning. The PowerPoint presentation for part two requires the participants to utilize the provided Turning point systems. The Turning point system engages the participants to answer and give feedback to the financial situations presented within the PowerPoint presentation. As mentioned before at the end of the presentation, the participants complete the post-test and are thanked for their time.

4. Data Analysis/Findings

The data collection came from years 1 to 5 through grant research at a plethora of different seminars and workshops. Although many of the activities at workshops were similar, pre- and post-test were different. When finding similarities between the different test there was consistency among only demographics. Each year, there were four demographics present in each workshop held. These demographics included gender, age, income, and race. Fellows transposed the demographic information from each seminar across the 5 years. After completing each individual year, the data were then consolidated to provide total sums per each year. Descriptives, frequency, t-test, and mean test were ran in SPSS to receive a full analysis of the information captured (Appendix A, Table 1).

Fellows first ran descriptive statistical test to describe the basic features of the provided data set. This test gave summaries of the minimum, maximum, mean, and standard deviation of the four categories. When finding similarities between the different test there was consistency among only demographics. The minimum number of male's present was 2 with a maximum of 44. In contrast, the female numbers included a minimum of 26 and maximum of 101. This no doubt shows that there was consistently a strong presence of women at workshops. Men are often known as the risk-takers and women are known for being risk averse (Sundheim, 2014). Often, women tend to want to know more about their finances and constantly learn new habits and practices. Men, on the other hand, are sometimes more willing to take major risk with their finances and have more of a think then act mindset instead of planning and preventing situations. As there was still a strong presence of men at workshops, there is no doubt that women tend to be the larger group in attendance at each workshop (Appendix A, Table 2).

Financial literacy fundamental money management is the process of budgeting, saving, investing, spending, or otherwise in overseeing the cash usage of an individual or group (Investopedia, 2017). The biggest factor in an individual's money management is one's income. With low-income communities, one might have a hard time managing their money if they feel they cannot make it to the next paycheck once they have made all their necessary payments to survive. The inability to correctly answer questions about managing money is even more pronounced in demographic groups that experience significantly higher rates of poverty (Lusardi and Tufano, 2008). In the current economic environment, it is essential to equip consumers with the necessary tools to make informed financial choices.

When running the frequency test, the two variables used were gender (male and female as one) and salaries. The test provided five frequencies for each salary range (Appendix A, Table 3). Income earned under 10,000 contained the largest number of data. Income range 10,000–19,000 conveyed the second largest numbers of frequency including 7, 12, 13, 19, and 25. Income over 50,000 lowest frequency was 0 and highest was 15. During year 4, fellows conducted a Hampton Financial Forum seminar. Of the 59 attendees, 49 had income below 10,000. Furthermore, during year 4, there was another seminar held at Hampton University in which 35 attendees also made below 10,000. Researchers believe that the large attendance from Hampton University students has made the under 10,000 income categories constantly recurring. Full-time college students often have little to no income until they graduate and start their careers. The income range that had the lowest frequencies was over income over 50,000. As our hypothesis predicted, this would be true. As our seminars strive to bring to promote healthy financial behaviors low-income minorities throughout the Hampton community, it was very unlikely that many individuals containing very large salaries would attend such sensitive workshops, but there was still an opportunity that welcomed them.

In addition, the two-tailed t-test yielded interesting results (Appendix A, Table 4). When analyzing the data, the focus was put primarily on the significance value. The significance value or P value showed how strong the hypothesis was. That through these informational sessions, people were gaining knowledge in financial literacy. Specifically, in the income bracket of $10,000 to $19,999, the most significance took place. What was found even more interesting, was that the bracket for income under $10,000 was the second least significant out of all of the income brackets. These discoveries were considered to be serendipitous findings. How can an individual's income tier differ so vastly from the income category directly above it? The researchers concluded that when you have very few financial options, one will become more efficient with their funds. In the case of the under $10,000 to $19,999 population, because they do not have much money to work with they have no choice, but they be careful in the money they spend and creative in how they accrue more funds. For the population whose income is under $10,000, researchers realized that certain seminars included college students who had no income. The college student participation is what made the data differ from what the researchers anticipated. Thankfully, the $10,000–$19,999 income bracket correlated with the hypothesis.

The mean analysis also presents intriguing findings. The analysis showed the researchers that the vast majority of people attending the seminars were coming from the under $10,000 income bracket. This finding shows that people who do not make much money are interested in learning not only how to effectively use the money they have now but also how to create more revenue streams for themselves. This further supports the previous discovery in people in this same income bracket learning the most about financial literacy. Lower class individuals are clearly concerned for their funds so hosting these seminars prove to be essentially in the financial growth.

5. Conclusion

Financial literacy seminars conducted by the researchers have genuinely improved the financial knowledge of a number of individuals. As a result of the pre- and post-surveys given, individuals have learned how to efficiently budget, save, and invest their money. Research also shows that men and women from all different income levels attend the seminars meaning every can benefit from their informational sessions. Continuing to provide people with tools to gain more financial literacy will prove not only beneficial to the general public but also to the economy as well.

References

Alenhawi, Y., Ekhel, K. (2015), Financial Literacy of U.S. Households: Knowledge vs. Long-term Financial Planning. Available from: https://academyfinancial.org/resources/Documents/Proceedings/2013/C2_Alhenawi_Elkh al.pdf. [Last retrieved on 2018 Apr 29].

Beale, R., Heyliger, S., Calvin, J., Calder, C. (2015), Multi-Level factors which impact financial literacy in under-served communities. The International Academy of Business and Public Administration Disciplines, 1, 684-696.

Cackley, A. (2014), Financial Literacy: Overview of Federal Activities, Programs, and Challenges. Available from: https://www.gao.gov/products/GAO-14-556T. [Last retrieved on 2018 May 23].

Collins, J. (2010), Effects of Mandatory Financial Education on Low Income Clients. Focus. p13-17. Available from: https://www.irp.wisc.edu/publications/focus/pdfs/foc271c.pdf. [Last retrieved on 2018 May 22].

Investopedia. Money Management. Available from: https://www.investopedia.com/terms/m/moneymanagement.asp. [Last retrieved on 2017 Nov 21].

Lusardi, A., Tufano, P. (2008), Debt Literacy, Financial Experience, and Overindebtedness. Dartmouth College Working Paper. Hanover, New Hampshire: Dartmouth College.

Miley, M. (2008), Expanding Financial Skills in Low-Income Communities A Framework for Building an Effective Financial Education Program. Available from: http://www.massassets.org/sites/default/files/Financial_Framework-Web.pdf. [Last retrieved on 2018 May 23].

Sundheim, D. (2014), Do Women Take as Many Risks as Men? Available from: https://www.hbr.org/2013/02/do-women-take-as-many-risks-as. [Last accessed on 2018 May 23].

The National Financial Educators Council. (2013), The Financial Literacy Definition. Available from: :https://www.financialeducatorscouncil.org/financial-literacy-definition/. [Last retrieved on 2018 May 24].

Appendix A

Table 1: Data collection at workshops

Item	Year 1	Year 2	Year 3	Year 4	Year 5	Total (%)
Gender						
Male	9	19	15	44	2	89 (20.84)
Female	51	93	60	101	26	331 (77.52)
Missing	1	5	0	1	0	7 (1.64)
Total	61	117	75	146	28	427
Age						
18–29	13	49	10	129	0	201 (47.07)
30–39	15	15	20	2	5	57 (13.35)
40–49	8	21	12	0	6	47 (11.01)
50–59	17	18	22	7	2	66 (15.46)
60+	5	4	8	5	16	37 (8.67)
Missing	3	10	3	3	0	19 (4.45)
Total	61	117	75	146	28	427
Income						
Under 10,000	28	49	14	89	9	189 (44.26)
10,000–19,999	12	25	13	19	7	76 (17.80)
20,000–29,999	2	8	11	7	3	31 (7.26)
30,000–39,999	3	9	2	3	3	20 (4.68)
40,000–49,999		2	4	2	6	14 (3.28)
Over 50,000	3	2	12	15		32 (7.49)
Missing	18	22	19	11		65 (15.22)
Total	61	117	75	146	28	427
Race						
African-American	58	102	66	138	16	380 (88.99)
Caucasian	1	3	2	5	5	16 (3.75)
Asian/Pacific Islander		1	3	1	0	5 (1.17)
Others		3	1	1	7	12 (2.81)
Missing	2	8	3	1		14 (3.28)
Total	61	117	75	146	28	427

Table 2: Descriptive statistics

Items	Minimum	Maximum	Mean ± SD
Year	1	5	3.00 ± 1.581
Male	2	44	17.80 ± 15.991
Female	26	101	66.20 ± 30.882
Missing	0	5	1.40 ± 2.074
Valid (N) listwise			

Table 3: Frequency descriptive statistics
Income between 10,000 and 19,999

Average frequency of income collected	Cumulative percentage of frequency
7	20
12	40
13	60
19	80
25	100

Table 4: Two-tailed t-test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Under 10,000	2.596	4	NS .060	37.800	-2.62	78.22
10,000-19,999	4.896	4	.008	15.200	6.58	23.82
20,000-29,999	3.746	4	.020	6.200	1.60	10.80
30,000-39,999	3.162	4	.034	4.000	.49	7.51
40,000-49,999	3.656	3	.035	3.500	.45	6.55
Over 50,000	2.150	4	NS .098	6.400	-1.86	14.66

= Most Significant

= Significant