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Changes to The Student Loan Experience: Psychological Predictors and Outcomes

By Thomas Mueller

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This study builds on the work of scholars who have explored psychological perceptions of the student loan experience. Survey analysis (N = 175) revealed a multidimensional model was developed through factor analysis and testing, which revealed four latent variables: Duress, Mandatory, Financial, and Success. Duress and Mandatory were found to be independent unique predictors of the student loan process. Though perceptions were not differentiated among groups, a predominant segment of respondents did not recall their loan interest rates or terms of repayment. Respondents acknowledged the availability of loans but did not correlate availability to the value of university degrees and future earning potential. A greater understanding of the psychology behind student loan procurement can assist student loan practitioners in creating better messaging and communication for this important consumer group.

Key Words: *Student loans, student debt, loan repayment*

An anonymous proverb, sometimes attributed to a Buddhist monk, states “pain is inevitable, suffering is optional.” A large proportion of students matriculating at colleges and universities today might apply that maxim to their student loan experience. Rising university tuition has made the borrowing of student loans (and related debt) a necessity if higher education is to occur. However, suffering ensues when jobs are difficult to attain and the cost of the loan outweighs the benefits realized.

Student loan debt has now topped \$1 trillion in the United States. It has surpassed the total amount owed on all U.S. credit card debt (Elmer, 2012). Two-thirds of university/college seniors who graduated held student loan debt, with unpaid loans ranging from \$17,250 to \$32,450. Approximately one in five (19%) U.S. households have now incurred student debt, more than double that statistic two decades prior (Fry, 2012).

A downturn in the economy affected family resources available to students, while state funding cutbacks led to tuition increases at public universities (Reed & Cochrane, 2012). These factors have propagated a student loan crisis. Academic experts have statistically tracked student loans and have warned of a potential run-up to a “bubble” that comes prior to a financial crash. Others have heightened concern over the fact

only 50% to 58% of students who begin higher education will finish a degree within six years. Academic postsecondary institutions have been challenged with the fast-changing cost of education versus retention and success among students (Arena, 2012).

Other educational scholars have explored student loans from a psychographic perspective and have identified indicators of perception related to the loan experience. For example, Baum and O'Malley (2003) and Perna (2006) investigated the effect of family, counselors and cost analysis as related to perspective. Additional research that focuses on the psychological perceptions of student loan procurement can serve to help school counselors and administrators, government providers, and lenders as they engage students in loan education and processing.

This is an exploratory study into psychological perceptions of the student loan experience. A deeper insight into how consumers perceive the student loan experience can enhance understanding and lead to improved communication and messaging as part of this necessary, but in some instances painful, dimension of university education.

Literature Review

Kowzan (2010) has reflected that debt has become a new sociological category of poverty. Student loan debt was frequently mentioned by respondents as a factor of indebtedness, specifically related to repayment dates, which were deemed “unimaginable” for many (p. 41). Student loans are part of the long-term consequence of an education made on credit. Within this sociological construct, debt is no longer a side-effect of education, but rather its primary condition.

And while debt creates the aura of poverty, it also affects future career choice and direction into the workforce. Williams (2006) concluded that student debt teaches students that education is consumer service, in those career paths must pay back debt; that low rates and long terms minimize the significance of starting a career in debt; and that regular student loan payments interfere with less commercial opportunities. Student debt forms a world view where citizens hold obligations to financial institutions, where financial potential is seen in the ability to carry debt, and where job loss or health issues can lead to financial ruin and social degradation. Rothstein and Rouse (2011) concurred that students borrow against future earnings, where debt drives interest in higher-salary jobs over lower-paid public interest jobs.

It has also been noted that loan status is affected by institutional influences. Belfield's (2012) study states that students in 2-year for-profit colleges borrow approximately four times as much as those who attend 2-year public colleges. And among those two groups, students holding loans from for-profit colleges have a repayment rate five percent lower than those repaying loans related to 2-year public institutions. Repayments rates are also lower among colleges with higher proportions of minority students and related lower graduation rates. Conversely, single-program colleges and universities demonstrated higher repayment rates.

Based on the outcomes described, some students have come to question the long-term benefits of higher education, related to the overall cost (Johnson, 2012). However, it has been suggested that lower-income students who borrow for educational purposes are more active and engaged within the political structure, carrying higher levels of self-interest over higher-income students. The student loan experience is also subject to counselors (McDonough & Calderone, 2006). Lower income students in African American and Latino families were affected by personal assessments regarding the need of higher education, cost versus benefit beliefs and the effects of scarcity of funding. However, college counselors remain unsure when recommending types of loans, amount of loans needed, and consequences related to late repayment (Perna, 2006).

Christie and Munro (2003) have argued that students remain poorly informed regarding the costs and eventual benefits of higher education. Their qualitative study with students (N = 49) indicated students believe further education produces positive economic benefit in their lives. Three themes emerged from the personal interviews regarding debt: One segment was debt averse/avoiders, a second segment perceived student loans as either neutral or inevitable, while a third segment were debt oriented/debt by choice. Cultural influences and the available resources of family were mediating factors for each of the student segments within the student loan process.

In their 2003 study, Baum and O'Malley reported on the perception of student loans from a repayment perspective. More than two thirds stated student loans were a major factor in education beyond high school. A majority of respondents concluded that borrowing for education produced benefits that were in proportion to problems encountered with repayment. However, a trend identified in the study indicated negative attitudes related to education debt are increasing. The National Student Loan Survey (NSLS) included items designed to capture feelings related to student loans. Over 50% (N = 1,280) felt burdened by the repayment process; the same proportion of respondents stated they would borrow less if the process was repeated. Approximately one third experienced a financial hardship in loan repayment, which was greater than what was anticipated.

Perna (2008) examined perceptions of the loan experience among high school students during the 2004 to 2005, and 2005 to 2006 academic years. The author utilized descriptive case studies from 15 public high schools and incorporated a conceptual model the author developed (Perna, 2006). Research teams conducted focus groups with 9th and 11th grade students, 9th and 11th grade parents, and with teachers and counselors at each location. Some students held a rudimentary understanding of loans and potential sources, while others were uninformed about loan realities. Most held the perception that loans were necessary to attend college. Among an audience in middle- and high-resource schools (average or above student achievement and socioeconomic status), the benefit of loans outweighed the cost. In contrast, students at low-resource schools (below average achievement and socioeconomic status) viewed loans as risky, based on concern over repayment of the debt. A substantial group, inclusive of

parents, believed loans were necessary to matriculate at a college or university, rather than at local community colleges. Perna concluded that perception of the loan experience is weighted by a clear understanding of benefits and cost, an appetite for risk, and resources available to each specific student's family. The role of habitus, perceptions gained through one's immediate environment, is influential in determining an understanding of how loans and debt fit into higher education.

Scholars have also applied theoretical social science models to determine procurement of student loans. Chudry, Foxall and Pallister (2011) used Ajzen's (1991) Theory of Planned Behavior to explore antecedents to loan attitudes and debt consumption. Factors related to attitudinal perceptions were categorized as debt averseness and knowledge of the loan process. Key indicators of borrowing decisions were money management beliefs, parental input, and knowledge of finance.

Research also indicates that psychological perspectives are related to student loan default statistics. Flint (1997) has cited empirical reports that state individual differences take precedent over attitudinal perceptions, with personal identity, achievement and personality as key predictors of default. The author cites a pivotal study conducted by Stockham and Hesseldenz (1979), who stated that personality variables were strong predictors of both repayment (91.5%) and default (94.5%). At the time of his research, Flint (1997) stated few studies had explored personality variables as related to credit use. The study also called for loan counselors to tailor messages to specific personality types.

The student loan experience is complex and predicated by perceptions of indebtedness, obligations to financial institutions, potential for higher future earnings, cost-versus-benefit comparisons, burdensome attitudes, and amount of knowledge about the loan process. This study further investigates the psychological and psychographic dimensions related to student loans. Knowing not only how, but why students make loan decisions can assist lenders, aid administrators, counselors, and university communicators in better understanding their audiences. A deeper insight into the psychology that drives the procurement and subsequent repayment of student loans will allow for better messaging and communication.

Methods

This study adhered to the multistage research procedure developed by Soh, Reid, and King (2009), who cited the research design of Churchill (1979) when developing a multidimensional scale for the construct of trust. The procedure incorporated measurement theory when operationalizing multiple measures for the student loan experience. Gerbing and Anderson (1988) suggested the scale development process should include both exploratory and confirmatory factor analysis, to define and then test for unidimensionality within each latent variable of the completed structural model. And within scale development, DeVellis (2012) also called for a correlation between individual items within latent variables, items that share a common cause within those variables.

The research procedure also employed a pedagogical approach and incorporated 14 undergraduate students from a research methods class as co-investigators. Protocol for student participation in this study was developed by the Institution Review Board (IRB) office at a public university in the southeastern region of United States. Students completed the Collaborative Institutional Training Initiative (CITI) Human Subject Training Course prior to participation as co-investigators. Students also authorized the use of data collected for later publication purposes, as advised by the IRB office. A student research agreement was signed by all students prior to the collection of data.

The first phase of exploration included an introductory review that described published literature, general media sources, and Internet sites. Students received training in hosting focus groups, with a planned outcome of collecting themes related to perception of student loans, and the collection of descriptive adjectives that define the loan experience. Students were placed into four sub groups, with each group conducting unique focus group responses.

Focus Groups. Participants were chosen by each subgroup, from a convenience sample that included individuals who currently hold a student loan, or have paid off a prior student loan. Informed consent language was supplied by the IRB office and acknowledged by respondents prior to focus group sessions. Each focus group conducted a discussion that transitioned from general (student loans in the USA) to specific (perception of issues pertinent to the loan procurement process). Focus group leaders were asked to record and collect independent discussion points. Conversations included subjects that encompassed the value of loans, the credibility of the lending institutions, and the availability of loans. Focus group reporting by student groups produced nine themes. Each theme was later converted to a measurement item in the scale that served as a dependent variable in this study.

Pilot Study. Upon completion of the thematic discussion, focus groups asked respondents to independently write down adjectives that describes the student loan process. A list of 72 distinct adjectives was compiled from the combined lists provided by the focus group subgroups. In order to vet the adjectives, a pilot study was employed to validate the list. A matrix questionnaire was made available to a convenience sample (N = 72) who had previous experience with student loans. The pilot survey asked respondents to rate each of the words as it applied to their student loan experience. Each adjective was scored on a 5-point measure that was anchored with *very irrelevant* to *very relevant*. Adjectives scored as *very relevant* were retained, which reduced the adjective list to 48.

Survey Instrument. The final survey instrument was developed following focus group activity. Online survey software was utilized to collect data for this study. Student co-investigators prompted responses through convenience sampling and snowball sampling techniques, reaching individuals who had procured loans as part of university education. The questionnaire included a mandatory opt-in to IRB release language, nine items related to

the loan procurement themes, and a matrix question that asked “Please rate each of the words below as it applies to your experience with student loans. Mark the circle that most closely represents your response for each adjective.” Each adjective was measured with a 7-point scale to offer greater points of discrimination and distinction. The measurement item was once again anchored with *very irrelevant* to *very relevant*. Demographic items included age, gender, marital status, income, work or student status, rate and length of payment on procured loans, amount of tuition fees at university, and length of time at university.

According to Tukey (1977) exploratory factor analysis (EFA) uncovers indications and is detective in character, while confirmatory factor analysis (CFA) confirms the dimensionality and is judicial. EFA was utilized to create a factor structure among the student loan adjectives. CFA was then performed on the student loan dimension model to confirm the proposed model structure, test whether discriminant validity existed among the factors, and determine sufficient reliability among the constructs. A split-half method was employed to create datasets for the EFA and CFA tests. Total responses were randomized, with 88 respondent datasets used for exploratory factoring and 87 respondent datasets used to confirm the proposed model. The Statistical Package for Social Sciences (SPSS) and Analysis of Moment Structures (AMOS) software were used.

Multiple regressions were utilized to test for statistically significant and unique indicators of the student loan experience. The dependent variable was defined as the grand mean score from the nine-themed items in the survey (Table 2). Independent variables were devised through grand mean scores from each factor in the perception of student loans multidimensional model.

Significant differences among respondent groups were determined through independent samples T-tests and Analysis of Variance (ANOVA) tests using the grand mean of the 9-item student loan scale as the dependent variable.

Results

Survey solicitation produced 175 useable responses. Gender was fairly evenly distributed with 45% male and 55% female. The most predominant age demographic was 22 to 25 (26.5%), followed by 26 to 29 (17.1%). Approximately half (53%) were single, followed by those who were married (32%) and cohabitating (6%). Most (68.7%) were working full-time (defined as more than 30 hours a week).

Almost 40 percent (39.2%) had graduated, 17.8% had been currently attending for 3-4 years, and 15.6% were currently enrolled and attended university for 1-2 years. Some (7.2%) were in their first year of university, and 8.9% had attended but did not graduate. Of those who graduated, 36.5% held a 4-year degree, 18.8% held a 2-year degree, and 16% held a master's or terminal degree. Among respondents, 21.7% earned \$20,000 - \$39,999 a year, another 15% earned less than \$10,000, 14.4% earned \$10,000 - \$19,999, and 13.9% earned \$40,000 - \$49,999.

Loan amounts varied. Survey respondents indicated that upon graduation, 13.5% had borrowed less than \$10,000, 18.5% borrowed between \$10,001 - \$20,000 and 19.7% amassed a debt of \$20,001 - \$30,000. A smaller proportion (26.4%) borrowed \$30,001 - \$100,000. Only 3.4% of the respondents borrowed more than \$100,000. However, it is important to note that 18.5% of the respondents were unaware of the amount of debt procured upon graduation.

Student loan repayment plans varied between 0 - 5 years (19.7%), 6 - 10 years (31.5%), 11 - 15 years (12.9%), 16 - 20 years (9%) and more than 20 years (3.9%). A predominant group (23%) did not know the term of their repayment plan. Also important is the number of respondents (28%) who “don’t know” the average rate of interest on their student loans. Those who acquired a 5% - 6% loan rate represented 22% while students with 3% - 4% average student loan interest rate represented 19.8% (Table 1).

There were no statistically significant differences in perception of the student loan process among gender, age, income, education, marital status, interest rates, and term of debt or matriculation.

The 9-item perception of student loan scale produced acceptable reliability ($\alpha = .82$) (Table 2). An analysis of the items indicate that removing “Student loans are equally available to all students” would increase scale reliability by a marginal amount ($\alpha = .84$). A correlation analysis was utilized to examine relationships among the nine items within the student loan scale. The majority of relationships were significant, most producing medium, positive correlations among variables. However, what proved most interesting were relationships that were not significant. “Student loans are equally available to all students” did not correlate with the value of student loans related to their university degree, earning potential, and the acceptability of acquiring loans.

Of the 175 usable responses, two random groups were created. One group was used to perform an Exploratory factor analysis (EFA). The EFA of 48 student loan adjectives indicated nine factors with Eigen values above 1. However, an inspection of the scree plot revealed a clear break after the fourth factor. Cattell’s (1966) scree test indicates it would be appropriate to retain four factors for further investigation. It should be noted that factors 3 and 4 (*Financial* and *Success*) were weak contributors to the solution. Parallel Analysis indicated only two components (*Duress* and *Mandatory*) exceeded the corresponding criterion values for a randomly generated data matrix of the same size (48 potential variables x 88 respondents). Based on the exploratory nature of this study, four factors (*Duress*, *Mandatory*, *Financial*, and *Success*) were retained in the student loan model. Table 3 presents the adjectives used in this factor analysis. The four factors were named to indicate latent variables associated with each cluster of adjectives.

The 4-factor solution explained 55.8% of the variance, which proved sufficient. In their study on best practices for EFA, Costello and Osborne (2005) contended that smaller sample sizes ($N = 88$ in this analysis)

Table 1. Awareness of Student Loan Interest Rates and Repayment Schedule

Variable	Percent
<i>Interest rate (%)</i>	
0-2	9.3
3-4	19.8
5-6	22.0
7-8	9.3
9-10	5.5
More than 10	6.0
Don't know	28.0
<i>Repayment term (years)</i>	
0-5	19.7
6-10	31.5
11-15	12.9
16-20	9.0
More than 20	3.9
Don't know	23.0

Table 2. Nine-item Perception of Student Loan Scale ($\alpha = .82$)

Item	Mean	Standard Deviation
The student loan application process is acceptable.	4.44	1.72
Student loans are equally available to all students.	3.86	1.92
Paying for university with student loans was a good decision.	4.26	1.79
Interest rates on student loans are acceptable.	3.77	1.87
Student loan lending institutions are trustworthy.	4.22	1.64
The cost of student loans is equal in value to my university degree.	3.94	1.89
Student loans increase future earning potential.	4.42	1.94
Attaining student loans was a positive experience.	3.68	1.62
It is acceptable to acquire student loan debt for university.	4.51	1.67

Notes:

Scale anchored on 7-point measure strongly disagree (1) and strongly agree (7).

α = Alpha, which is the level of significance.

produced an average variance of 59.8%. In another meta-analytical study of outcome measures in marketing, the average total variance among 803 substantive factor analyses was 56.6% (Peterson, 2000). The Kaiser-Meyer-Olkin measure for sampling adequacy measured .79, well above the recommended value of .6, and Bartlett's test of sphericity reached statistical significance. Communalities were all well above .3, further confirming a common variance among the items.

Principle component analysis and Varimax rotation methods were performed. Varimax rotation provided the best defined factor structure. The first factor (*Duress*) explained 28.2% of the variance, the second factor (*Mandatory*) 17.9% of the variance, the third factor (*Financial*) 5.8% of the variance and the final factor (*Success*) 4.0% of the variance. Reliability was tested to determine internal consistency within subscales. The alphas were moderate to high: .95 for *Duress* (19 items), .91 for *Mandatory* (8 items), .81 for *Financial* (4 items) and .70 for *Success* (3 items).

The second random group of usable responses was used to conduct a Confirmatory Factor Analysis (CFA) to test the structural model design based on the EFA 4-factor solution. Discriminant validity existed among the factors and sufficient reliability existed among the constructs. Some results indicated an acceptable fit ($\chi^2 = 1153.03$, $df = 521$, $p < .001$. CMIN/DF = 2.21), while other tests revealed a marginal fit (Root Mean Square Error of Approximation (RMSEA) = .12, Goodness of Fit Index (GFI) = .56, Comparative Fit Index (CFI) = .70. Modification indices for covariance among errors were examined to improve fit. Covariations made among factor errors were *Frustrating* with *Consuming*; *Looming* with *Numerous*; *Anxious* with *Demanding*; *Demanding* with *Tiring*; and *Lengthly* with *Numerous*. Standardized residual covariances indicated that items *Deceptive*, *Chaos* and *Needed* produced discrepancies between the proposed model and estimated model and were removed. Based on small sample size, the improved model offered acceptable fit ($\chi^2 = 804.98$, $df = 423$, $p < .001$. CMIN/DF = 1.90, Goodness of Fit Index (GFI) = .63, Comparative Fit Index (CFI) = .79, Root Mean Square Error of Approximation (RMSEA) = .10 (Figure 1).

Multiple regressions were employed to test the significance of the 4-factors in the student loan model (*Duress*, *Mandatory*, *Financial* and *Success*) as predictors of the student loan experience. Regression testing also determines which dimensions are unique and significant predictors of the outcome. Understanding the factors as dimensions of the student loan experience in this light allows practitioners to better craft messaging and media content that either supports a positive predictor, or is designed to alleviate a negative predictor. The results of the regression were significant and explained 59.6% of the variance $R^2 = .36$, $F(3, 313) = 23.37$, $p < .001$. *Duress* ($\beta = -.37$, $p < .001$) and *Mandatory* ($\beta = .62$, $p < .001$) were unique significant predictors of the student loan experience (Table 4).

Table 3. Factor Analysis of Adjectives Related to Student Loans

Item	Duress $\alpha = .95$	Mandatory $\alpha = .91$	Financial $\alpha = .81$	Success $\alpha = .70$
Hectic	0.63			
Overwhelming	0.64			
Deceptive	0.72			
Frustrating	0.75			
Consuming	0.85			
Hard	0.76			
Long	0.80			
Hassle	0.63			
Apprehensive	0.68			
Complicated	0.62			
Looming	0.71			
Chaos	0.74			
Trying	0.75			
Painful	0.75			
Anxious	0.62			
Demanding	0.64			
Tiring	0.81			
Lengthy	0.72			
Numerous	0.73			
Important		0.59		
Necessary		0.84		
Needed		0.81		
Useful		0.78		
Appreciative		0.67		
Assist		0.62		
Imperative		0.77		
Helpful		0.81		
Costly			0.57	
Rates			0.61	
Debt			0.74	
Expensive			0.80	
Opportunity				0.54
Fair				0.64
Educational				0.73

Figure 1. Multidimensional Student Loan Scale with Error Covariations

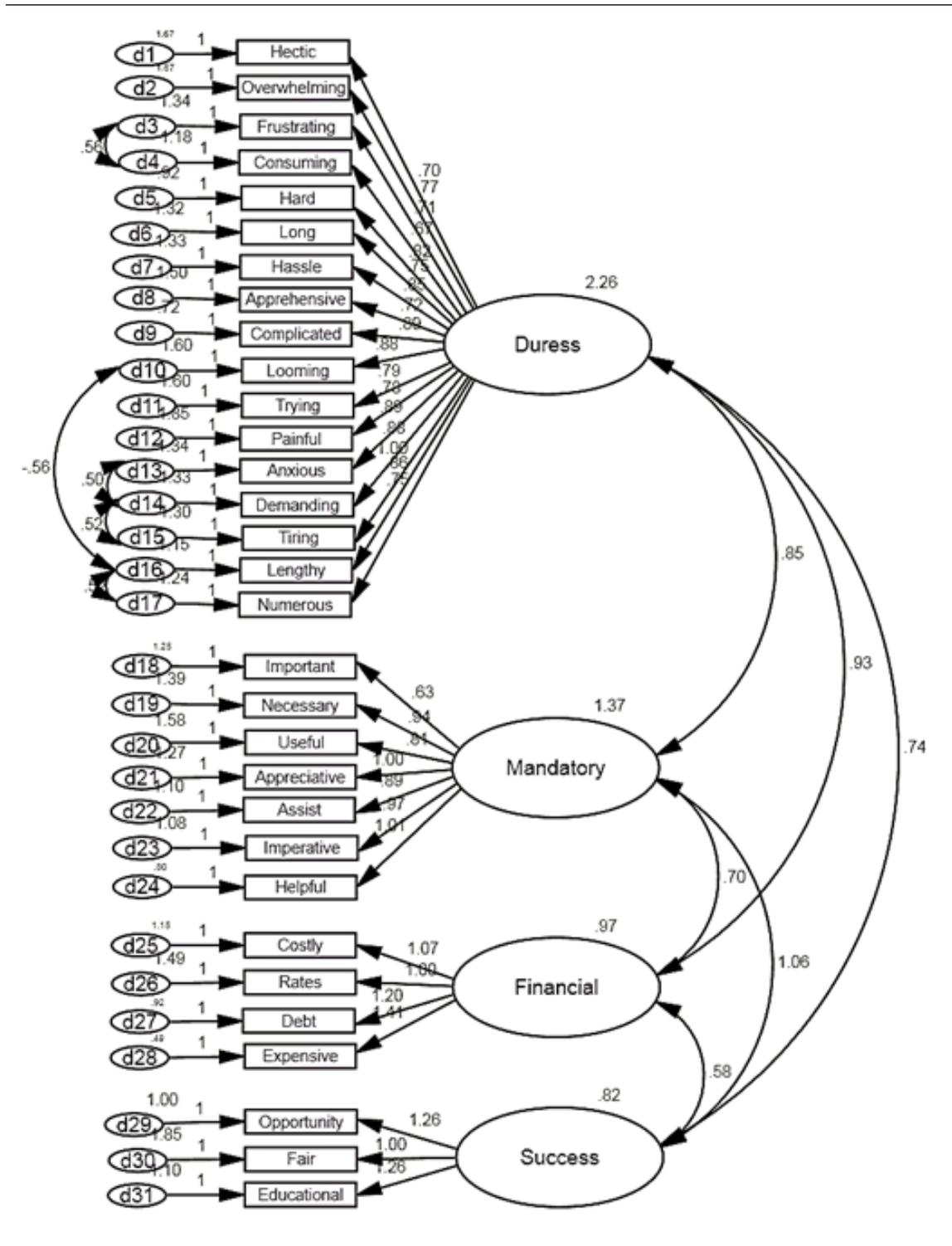


Table 4. Multiple Regression for Perception of Student Loans

Variable	Unstandardized Coefficient (B)	Standard Error (B)	Standardized Coefficient (β)	Test Statistics	Significance (<i>p</i>)
Duress	-0.35	0.07	-0.37	-5.15	0.00
Mandatory	0.63	0.08	0.62	8.04	0.00
Financial	-0.09	0.08	-0.10	-1.18	0.24
Success	0.02	0.07	0.02	0.32	0.75

Note: Dependent variable 9-item Perception of Student Loan scale. $R^2 = .36$, $F(3, 313) = 23.37$, $p < .001$.

Results

This study confirmed a 4-dimension psychological model for the student loan experience. *Duress* and *Mandatory* are the most powerful constructs and are also unique significant predictors of student acuity when engaging the student loan process. Two additional dimensions, *Financial* and *Success* contribute less power, nonetheless are significant and valid.

An examination of descriptive statistics revealed startling information. A predominant segment of respondents did not know the interest rate, or term of repayment, for their respective loans. And though respondents agreed student loans were readily available, that knowledge was not associated with the value of their academic degree or future earning potential. In fact, respondents might agree that while student loans are available, acquiring loans is not acceptable method of financing their higher education.

Student loans have become an essential component of higher education. Few hold the personal resources to complete a college or university education debt-free. The burden of searching out alternative funding sources has become as prevalent as entrance exams. And, the university landscape has become cluttered, with both brick-and-mortar and online education opportunities. Lending institutions, counselors, and university administrators must play a larger role in delivering clear messages that facilitate the loan process.

An examination of the latent dimensions that predict perception of student loans will serve in the messaging and communication process. *Duress* captured 17 items in the final model. Many of these items define an unhealthy emotional state, (i.e., Overwhelming, Apprehensive, Painful and Anxious). Concerted efforts to promote customer service, loan process support, and easy access to loan information will assist in a more comprehensive understanding for borrowers associated with student loans. The latent variable *Mandatory* captured seven items and two unique themes. First, students understand loans must be taken to go to school, but also embrace support that comes through this process, i.e. Appreciative, Assist and Helpful. Financial aid practitioners can use this insight to brief students on loan sourcing but then immediately disclose that support person-

nel are available to support the loan process. Educators, administrators and loan officers may also want to review the placement and prominence of loan information on web portals. Easy paths to information, step by step procedures and quick access to help via real-time chat options can overcome negative perceptions related to *Duress* while bringing forward support and information through the theme indicated in *Mandatory*.

Though not uniquely significant, the dimensions of *Financial* and *Success* remain relevant in the student loan communication mix. The final model indicates students perceive *Financial* through the adjectives of Costly, Expensive, (interest) Rates, and Debt. This study indicates a substantial segment of survey respondents do not know or cannot recall loan interest rates or repayment terms. It is suggested that financial aid practitioners assure a clear understanding of loan procurement, costs, and repayment schedules. Both interest rates and term of reimbursement can take a more prominent position in web content, social media messaging, and advertising strategy.

The adjectives Opportunities, Fair, and Educational were captured in *Success*. This dimension indicates a motivation beyond student loan procurement and represents the dreams and hopes a college degree would provide. However, this dimension was weak within the model. That may be attributed to the lack of immediacy related to the benefits attained through the loan, versus the psychological profile that accompanies the actual procurement of the loan. Loan administrators can use this research data as a motivator to frame values associated with the education and outcomes at their institution. Communication materials can provide statistics regarding job placement, the cost of education as related to salaries, and how borrowing now will enhance career advancement upon graduation.

The 9-item Likert scale and structural model developed in this study hold practical application for financial aid practitioners. For example, the items represented in the scale can be anchored by 7-point Likert type responses and can be incorporated into a university or loan survey. Responses from the nine items can be summed and then divided by nine to present overall grand mean scores. The grand means will provide an indication of student loan perception within that organization. As in this study, the nine items can also be tested in a correlation to determine associations among the items.

Loan practitioners can develop psychological predictors that are unique to each institution. The adjectives used in this study's structural model can be included in a university survey instrument. Each adjective can be ranked by survey respondents, in a *very irrelevant* to *very relevant* 7-point scale. An exploratory factor analysis will cluster the adjectives specific to that institution's respondent group, indicating psychological dimensions that will assist in a better understanding of student loan borrowers. SPSS indicators (such as Eigen values) will indicate the power of each cluster. Primary research generated within each institution offers fresh insight that allows financial aid administrators to adapt and refine messages to best affect their audiences.

Borrowing student loans, and the responsibility of being accountable for repayment, are serious financial matters, which can have large consequences to the borrowers, taxpayers, and the institutions that borrowers attend. Clarity in communication can be achieved through effective messaging. Many universities execute a comprehensive communication and marketing plan, including both social and consumer media channels. This study can be used to guide practical promotions that will engage students in a manner conducive to their psychological perceptions. Consider improving financial aid borrowing information material that will ease the entry and procurement of student loans, minimizing the negative perception indicated in the *Duress* factor. Accentuating the support and counseling available, adding clarity to the rate of interest, term of loan, and penalties related to default to build communication related to *Mandatory* issues. Using consumer and social media builds a stronger association between loan procurement and the related *Financial* value of a college or university degree. Finally, there seems to be a broken link within the sample group regarding loan procurement and return on vision for the future. Financial aid administrators should use media to provide information that demonstrates how student loans will contribute to their eventual careers and the *Success* factor.

Limitations

Certain limitations exist. Convenience and snowball sampling techniques were utilized to collect data. Treadwell (2010) suggests that a probability sample best statistically represents the overall population. This study cannot be fully generalized across the larger audience of all students who have procured a student loan.

Also, the source of loans was not indicated in this study. Perception of the loan process as related to private lending sources, versus procurement of federal student aid, might disclose divergent experiences and outcomes. Future studies should consider differentiation between borrowers based on origination of funds.

It would also be suggested that a more robust sample set be collected in future structural modeling studies. This work collected 175 useable survey responses, which were then separated into two subsets dedicated to EFA and CFA testing. Relatively small sample sets may be predictive of poor model fit. A larger sample, selected at random from a general population of students holding loans, would produce a more feasible audience for factoring and dimension testing.

Conclusion

This study presents an effective outline for enhancing the student loan experience. Financial aid practitioners, university counselors, and those in student advocacy roles can look to the student loan multidimensional model for an increased understanding of psychological predictors and motivators. However, the student population represents a complex community and messaging may need specific orientation. This can be distinguished among adult returning students, first time students, individuals

among alternative cultural subsets, and students within diverse socioeconomic segments.

There are future opportunities for practitioners to further explore the student loan psychological model. A cross-lagged survey, assessing mean scores across dimensions over two points in time, might elaborate on how student perception changes through economic, cultural and political shifts in our society. A concerted effort to continue in this line of research will assist in creating a positive student loan experience. Loan originators can respond with appropriate messaging and alleviate negative perceptions. The proverb “pain is inevitable, suffering is optional” can be made irrelevant when student aid administrators address the psychological dimensions represented in this research.

Nexus: Connecting Research to Practice

- A predominant segment of respondents did not know the interest rate, or terms of repayment on their student loans. Advisors should incorporate clear and predominant messaging that communicates the cost and commitment within the student loan process. Advisors might consider a protocol upon first interaction with students, where students acknowledge a full understanding of the loan products, duration of loan repayment and financial outlay related to specific interest rates.
- Students understand that loans are available, but students do not relate loans to the value of education or future earning potential. Practitioners might “begin with the end in mind” by introducing case studies of former students who utilized an educational loan to access academics and in turn attained viable career opportunities.
- The predominant psychological perception within the student loan process represents an unhealthy emotional state. Students feel the student loan process is overwhelming and painful, and they become apprehensive and anxious. Loan practitioners should consider tactics that alleviate student anxiety when facilitating the student loan procedure.
- Students from this study perceive their loans as costly, expensive, related to interest rates, and eventual debt. However, they also perceive opportunities for education through loans. Student loan administrators might consider revised communication content that features “student ambassadors” who can relate their loan experience and eventual positive outcomes. Institutions need to transition from the process of “granting” loans to a customer-focused model that demonstrates how student loans deliver return on investment in knowledge capital and career enhancement.

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