Designing for Education Debt Management

Improving Student Financial Experiences Through Design

A thesis submitted to the School of Visual Communication Design,
College of Communication and Information
of Kent State University in partial fulfillment of the
requirements for the degree of Master of Fine Arts
by

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DECEMBER, 2012
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Acknowledgments

I would like to extend my deepest appreciation and gratitude to those listed below for their enduring patience, encouragement, and criticism over the course of this project and the entirety of my college education.

• John and Debra Bacher
• Ruth Hamilton
• Brian Buirge
• James Williams
• Stephanie G. Churchill
• Jason Richburg
• Sanda Katila
• Ken Visocky O'Grady
• Jerry Kalback
Preface

This project, allowed me to combine two of my favorite passions—people and design—in an opportunity to better understand how student financial experiences could be explored from a design research perspective. My experience at Kent State University helped me realize the importance of visual communication design and its ability to generate positive societal contributions. As a student and designer, I saw insufficient support, financial ruin, and education debt as an opportunity: a chance to better understand why many students lacked the desire to become more actively involved in their personal finance and how they could address something so impactful and possibly life-changing with an apathetic, yet passive perspective.

This thesis is an exploration into the motivations behind students’ financial decision making with regard to borrowing for higher education. This investigation focuses on the many factors that make up a student’s financial capability and how they are shaped through past, present, and future experiences. As a result, it offers recommendations as to how we can better design those experiences to meet or exceed students’ current service expectations all while providing insight on the lack of financial literacy, students debt perceptions, and their financial attitudes and behaviors. In effect, this thesis aims to explore the application of design and research as means for creating a more valuable student borrowing experience. Additionally, this thesis and the data contained within are intended to serve as a foundation for design and the basis for future investigation.

It is critical to keep in mind that all of the research, findings, and recommendations are formulated from a design perspective. I am by no means a professional in the field of finance and make no claims to provide students or graduates with any form of financial guidance. I am a visual communication designer with an understanding of qualitative research and its application in conjunction with the basic principles of design.
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CHAPTER I

Introduction

Borrowing money for a college education is unlike any financial experience that exists today. Unlike taking out a loan for a car or a mortgage for a home, students enroll in a cycle of continuous investing—potentially carrying on for a lifetime. For a growing number of students, education debt is becoming a familiar and common reality. Students are faced with the challenges of navigating forms for borrowing, paradoxical language, terms, applications, and financial decision making all at the onset of their college experience. As students progress into their education, so too does their debt, furthering alongside as they move closer to becoming young professionals. Poorly designed financial resources and experiences misconstrue student’s perceptions of borrowing, making them unaware of the magnitude of their obligation, and consequently, not preparing them for the possibility of turbulent fiscal future. For many students, the amount of debt they have accrued over the course of their college education has yet to be fully realized. For others, graduation marks the beginning of long-term financial ruin.

Education debt is no longer reserved for those who could not settle on a major in a reasonable time frame, or for students who made the decision to attend for profit colleges (Martin et al. 2012). Additionally, the longer students remain in college, the more tolerant they become toward further increasing their debt (Davies et al. 1995, p.663). As their debt increases so too does their inability to fully comprehend its impact. Many students enter college with the expectation that furthering their education will result in an increased number of opportunities, which is not an untenable belief. However, though still considered a sound lifetime investment, a student’s opportunities greatly diminish when their level of borrowing supersedes their capacity for repayment (CollegeBoard, 2011, p.9). Additionally, obtaining a degree through excessive borrowing devalues its return on investment and creates a barrier for personal growth, limiting
one’s future opportunities while heightening their level of risk aversion. (Martin et al. 2012).

Furthermore, the long-term effects of education debt place incredible strain on a student’s ability to maintain focus on their coursework and, in many cases, the ability to complete their education (Cooke et. al. 2004). Studies suggest that individuals with excessive financial debt are more likely to suffer from mental-health issues over extended periods of time (Cooke et. al. 2004). The risk of these health-related issues are compounded as debt and accruing interest increase over the course of a student’s higher education experience. As time moves forward, a student’s increasing debt begins to factor into their financial attitude, greatly affecting their ability to make critical financial decisions in their future.

A number of outside factors also contribute to the difficult journey facing students and graduates. Hopeful, these individuals are finding themselves in a staggered economy with unprecedented unemployment rates. Parents and families who once supported their students are now struggling to meet their Expected Family Contribution ("EFC") (CollegeBoard, 2011 p.7). They too are facing one of the most competitive job markets in history. In addition to those challenges, tuition rates continue to increase as the fiscal circumstances of state governments and universities tighten (Brown et al. 2012). In effect, as enrollment numbers continue to rise, default rates follow suit, increasing as more people begin to pursue higher education than ever before (Martin et al. 2012).

**Federal Aid**

Providing parents and students greater equal access to higher education, the Federal Government offers a number of education-specific financing options. These options exist as some of the most common ways to financially pursue a college degree. Federal education lending and Financial Aid have a long history as a pivotal resource in the advancement and accessibility of
higher education. Education borrowing affords those without sufficient resources the ability to make a substantial investment in their education (CollegeBoard, 2011, p.26). The Free Application for Federal Student Aid, or FAFSA, grants students the ability to apply and receive aid from the Federal Government. In order to obtain such resources, each academic calendar year, students and parents are urged to file this application. Once the application is filed, universities, in conjunction with the Federal Government, determine what options are available to each student in regard to Federal Aid, Grant Aid and Federal Direct Loans. Eligibility for the allocation of these financial resources is determined based on a student’s need, calculated by a family’s EFC and the Cost of Attendance (CollegeBoard, 2011, p.9).

**FIG 1. FEDERAL LOAN OPTIONS:**

<table>
<thead>
<tr>
<th>1. FEDERAL PERKINS</th>
<th>2. STAFFORD UNSUBSIDIZED (DIRECT UNSUBSIDIZED)</th>
<th>3. STAFFORD SUBSIDIZED (DIRECT SUBSIDIZED)</th>
<th>4. DIRECT PLUS PARENT</th>
<th>5. DIRECT PLUS GRAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>• UNDERGRADUATE</td>
<td>• UNDERGRADUATE</td>
<td>• UNDERGRADUATE</td>
<td>• PARENTS OF DEPENDENT STUDENTS</td>
<td>• GRADUATE</td>
</tr>
<tr>
<td>• GRADUATE</td>
<td>• GRADUATE</td>
<td>• UNDERGRADUATE</td>
<td></td>
<td>• PROFESSIONAL STUDENTS ENROLLED AT LEAST PART-TIME</td>
</tr>
</tbody>
</table>

1A. PERKINS INDEPENDENT STUDENT  
2A. STAFFORD UNSUBSIDIZED INDEPENDENT STUDENT  
3A. STAFFORD SUBSIDIZED INDEPENDENT STUDENT  
1B. PERKINS DEPENDENT STUDENT  
2B. STAFFORD UNSUBSIDIZED DEPENDENT STUDENT  
3B. STAFFORD SUBSIDIZED DEPENDENT STUDENT


Each student has a unique set of needs, thus impacting the kinds of aid that are available. Federal Aid options for parents and students can be organized into three categories: grants, loans (figure 1.), and work study programs—each having their own characteristics and limitations. Accessible only to undergraduate students, with a documented financial need, are
subsidized Stafford Loans—one of the most common forms of federal aid. For all students, both undergraduate and graduate, are unsubsidized Stafford Loans. In addition, graduates and parents may also be eligible for GradPLUS and PLUS loans. In certain cases, those students who identify as having a high need for Financial Aid are also eligible for the Perkins loan (CollegeBoard, 2009, p.8). The advantage to using federal loans, rather than private loans, is primarily lower interest rates, both over the course of the loan and its during repayment.

**Private Aid:**

In addition to Federal Aid, it is important to note that there are private loan options available to parents and students as well. Typically less attractive, these loan options and their complexity should be seen as a last resort for students (Student Debt and the Class of 2010, 2011, p.9). Each private lender offers their own unique loan, with respective applications, interest rates, repayment schedules, terms and conditions. Parents and students often turn to private loans due to a misunderstanding that they have exhausted all other options for obtaining aid (Student Debt and the Class of 2010, 2011, p.9). This confusion hints at the lack of understanding and value created through planning resources. Further, students who choose to forego their federal options and use resources from private lenders are more likely to face the challenge of managing debt from multiple institutions after college, thereby adding to the complexity of their financial experience while increasing their risk for default.

**Thesis Statement:**

Students are borrowing without regard to the future impact of their decision making, placing incredible strain and emphasis on the value of their education. Further, they rely heavily on the knowledge and decision making of others to guide their financial management experiences.
Students are also discovering that their support needs and expectations are not being met through the traditional service offerings of Financial Aid offices and other such university resources. In regard to borrowing for education, these factors create a generation of students faced with inconceivable amounts of debt that lack the financial capability, experience, and resources necessary to gain a better perspective.

In an effort to address these issues, the following core objectives have been created to guide the process.

- Gain an empathic perspective of the audience in question.
- Identify opportunities for design to improve upon the existing experience.
- Provide a framework for further research, exploration and design.
- Explore peer groups as the basis for participatory design and the co-creation of services.
- Define support and service expectations.
- Offer insight into the timing and delivery of financial information.
CHAPTER II

Research Methods, Outcomes, and Opportunities

A Note on Process

Research was conducted with over 600 students, parents, and professionals as part of this thesis investigation. Participants were asked to share their experiences with education debt and the challenges they faced along the way. Their stories, interviews, and drawings were all collected in an effort to better define the issue and what opportunities design may have to alleviate the problem. Each new methodology informed its counterparts and served as a guide over the entire process. The researcher’s own field notes, observations, and documentation are referenced throughout this document. Insights gleaned from various research methodologies were combined with existing literature and the researcher’s own personal experiences in managing finance, education debt, and visual communication design.

As findings were uncovered, new directions for research were defined. In effect, each method and its results were placed into the following format: Method, Outcome, and Opportunity. Serving as a description of how the following data was collected, Method describes the research process in detail. Outcome, outlines the results of each specific method. Opportunity, offers insight from the process and defines what design opportunities surfaced as a result. (For a detailed visualization of the design and research process model, refer to APPENDIX A: FIGURE 2 on page 44.)

Research Methodology: An Overview

Residing at the core of every design opportunity is an audience of users. Through careful consideration, planning, and research, designers have the unique ability to survey their audience’s experiences, gather insights from their behavior and ultimately effect change in their environment. Qualitative research grants designers access into immersive user experiences,
allowing them to develop an empathic perspective of their audience as a guide for design. In order to employ an empathic perspective, project objectives must be well defined and understood. Gaining this perspective helps to prove or disprove any initial assumptions or personal bias toward end-users. This perspective also helps to uncover useful insights and opportunities not readily apparent. Increased emotional capacity and an understanding of the end users’ motivations and behaviors are also critical to framing the problem and furthering opportunities for the effective application of design principles. Successful development of user empathy goes beyond what the users are saying and more importantly delves into what they are doing and why. Additionally, user empathy plays an integral part in defining research strategy, tactics, and success metrics.

The insights uncovered in the following research investigation have been gathered through various sources of primary qualitative research and immersive experiences of observation and documentation. Employing multiple research methodologies allowed critical patterns, behaviors, and influences to surface, thereby defining the user’s experience. Once gathered, a foundation of user perspectives formulated the final direction of the investigation and determined which methods of research would help extract further information. The intended purpose of the research conducted for the investigation provided insight as to how design could improve the existing management of education debt from a student’s perspective; specifically focusing on those enrolled in public, state institutions, and those primarily using federal funding as the primary means of financing their college education.

*The following primary research methods were used or proposed for this investigation:*

- Interviews and Interceptions
- Mechanical Turk Surveys
- Observational Research
• Card Sorting and Comparative Analysis
• Focus Group Testing (proposed)

Applying the 5E Model

Both student and financial perspectives were placed into the 5E model to understand the process of financing a college education and the issues associated with such an experience (Conifer Research, 2011, p.2). The application of the 5E model breaks an experience down into the following five segments:

Method: 5E Model:

1. Entice: What draws the user to the experience, what brings it to their attention?
2. Enter: How do they enter the experience, where does it begin?
3. Engage: How are they engaged with or interacting with the experience?
4. Exit: How do they exit the experience?
5. Extend: How do they continue to associate with the experience?

The 5E model divides the components of an experience into smaller, easily digestible sections. This allows for each aspect of an experience to be compartmentalized and investigated further. As a result an experience map is formed: a tangible representation of the audience’s experiences and interactions with that specific entity (Conifer Research, 2011, p.2). Creating an experience map not only aids in the development of user empathy, but also tames the complexity of abstract based processes and allows design opportunities to become apparent (Conifer Research, 2011, p.2).
**Outcome:**

Three main trends emerged as a result of the 5E Model and were validated through other forms of primary and secondary research. Through this process, a personal or internalized perspective became apparent. This portion of the experience was where a student’s emotional aspects were processed and maintained. Parents and peers also appeared as a trend, playing the role of manager or support system. This part of the experience was where most students placed their trust and sought guidance. The third trend to emerge from the research was perception. This part of the experience was where students processed their decision making and found rationale to validate their behavior. The aspect of value was also formed through this portion of the experience. (To see the 5E Model and its phases, refer to **Appendix B: Figures 3.1–3.3**, starting on page 46.)

**Interviews and Interceptions**

**Method:**

Developed from initial assumptions and biases about the users’ behaviors and motivations, the following list of 10 questions were designed to guide a series of conversation-based interviews to prove or disprove their existence. (For a full list of user assumptions, refer to **Appendix B: Figure 3**, on page 46.) The interviews specifically focused on gauging participants’ personal financial background, level of experience, current education debt situation, and financial capability. In order to remain unbiased in questioning, participants were permitted to dictate the general direction of the interview. None of the participants interviewed were compensated for their time.

**Interview and Interception Questions**
1. If possible, describe your education debt situation?

2. Are you borrowing from public or private sources?

3. Describe what having education debt feels like?

4. How many of your friends or colleagues have mentioned their education debt?

5. How much has your major effected your need to borrow?

6. Was the cost of education a consideration when you selected your major?

7. Have you changed majors over the course of your college experience?

8. Where is the first place you turn for financial information and advice?

9. How active are you in managing your education debt over the course of the semester?

10. What is your plan for managing your education debt after graduation?

Interviews and interceptions spanned from 20–45 minutes in length and participants (all students) ranged from freshmen to graduate level. Participants interviewed via interception were approached in open public environments on the campus of Kent State University, a public research institution. Specific campus locations were targeted for their demographic concentration and student availability. Those participating in scheduled interviews were referred to through a process of snowball sampling. Referred participants were initially contacted by phone or e-mail and a suitable time and place was arranged.

The objective of interviewing and intercepting was to develop an initial foundation of user empathy and gain key insights on the user’s own perspective of education debt management. Ethnography was specifically chosen for its ability to access valuable qualitative information. The collected data was distilled through a synthesis process and triangulated for validity. The findings from this methodology were used to guide future research efforts and provide direction into the next phases of the design process.
Outcome:

(For an entire summary of interview results, refer to Appendix C: Figure 4.10, on page 62.)

• Students largely maintained their position on the value of education and were willing to chance financial ruin in order obtain their degree.
• The majority of students interviewed exhibited signs of stress or anxiety while discussing their financial matters.
• In ninety percent of cases where budgets existed and were in use, they had been introduced by parents and not generated by the students themselves.
• Students who’s parents owned businesses were more likely to have a long-term perspective on their own personal finance. This is due in part to an increased number of socialization experiences and encounters.
• Education debt was typically perceived as a liability over an asset.

Opportunity:

• Participants were open and willing to share their personal financial backgrounds.
• Several participants displayed a natural desire to become more proactive in their efforts to understand their own personal financial situations.
• All of the students interviewed admitted to wanting a better understanding of personal finance.
• Socialization experiences and encounters play a critical role in shaping a students expectations.

Survey (Mechanical Turk)

Method:

To contrast the documented in-person responses gathered from interviews and interceptions a survey was introduced. The survey was designed to provide its participants
with complete anonymity. In total, over 670 participants took part in both online surveys using Mechanical Turk, a web-based crowd-sourcing application provided through Amazon’s web services suite. Based on initial responses from the previous research method, four questions were designed to further survey emerging trends. Additionally, each of four questions focused on the effect complete anonymity played in a participants willingness to reflect on their personal financial experiences.

*Short-answer questions used in the Mechanical Turk Survey:*

1. When you have a financial question, where do you look for answers?
2. When you have financial emergency, what are your primary sources of information?
3. What factors mark the point in which a person becomes an adult (Arnett, 2011)?
4. What does having debt feel like?

Each the four questions or HITs (Human Intelligence Tasks), were posted to a board where participants could choose to complete them based on their restriction, description, or content. Participants remained completely anonymous during and after their tasks were approved and were only identifiable via unique worker identification number assigned at the beginning of their testing. If necessary, participants were able to communicate through the application itself. To ensure validity among the collected information, all of the completed tasks were approved regardless of their final response. Secondary demographic research was also reviewed to ensure the validity of those participating. Mechanical Turk was chosen for its accessibility to large numbers of participants within the targeted demographic. In 2009 it was reported that fifty seven percent of those using the service were from the U.S.. Additionally, the largest segment of those participating fell in the same age range as traditional students, with the majority of
users being female. Forty-two percent of users also reported having a bachelor's degree (Ross et al. 2010, p.2). Once sorted and organized, survey findings were overlapped with those of the previous methodologies. Other information recorded during this study included average time per assignment and effective hourly rate.

Outcome:

For each survey question, all of the provided responses were processed and ranked based on the number of times they overlapped. All of the results were then distilled further for words that appeared more frequently. Those specific words were then ranked into a top-ten list. (fig. 5)

**FIG. 5: SURVEY RESULTS RANKING:**

<table>
<thead>
<tr>
<th>QUESTION 1.</th>
<th>QUESTION 2.</th>
<th>QUESTION 3.</th>
<th>QUESTION 4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. GOOGLE</td>
<td>1. FRIENDS</td>
<td>1. 18 YEARS OF AGE</td>
<td>1. BACK</td>
</tr>
<tr>
<td>2. INTERNET</td>
<td>2. PARENTS</td>
<td>2. PEOPLE,</td>
<td>2. BURDEN</td>
</tr>
<tr>
<td>3. FRIENDS</td>
<td>3. BANK</td>
<td>3. CHANGE,</td>
<td>3. PERSON</td>
</tr>
<tr>
<td>4. PARENTS</td>
<td>4. INTERNET</td>
<td>4. SEX,</td>
<td>4. LIFE</td>
</tr>
<tr>
<td>5. BOOKS</td>
<td>5. FAMILY</td>
<td>5. THEMSELVES,</td>
<td>5. ALWAYS</td>
</tr>
<tr>
<td>6. WEBSITES</td>
<td>6. AID</td>
<td>6. MATURITY,</td>
<td>6. TIME</td>
</tr>
<tr>
<td>7. FAMILY</td>
<td>7. LOANS</td>
<td>7. DECISION,</td>
<td>7. NEVER</td>
</tr>
<tr>
<td>8. CALL</td>
<td>8. WEBSITES</td>
<td>8. TRANSITIONS,</td>
<td>8. BAD</td>
</tr>
<tr>
<td>10. ONLINE</td>
<td>10. CREDIT</td>
<td>10. TIME</td>
<td>10. MENTAL</td>
</tr>
</tbody>
</table>

Opportunity:

- In questions 1 and 2, with regard to obtaining information or support, parents and friends consistently ranked near the top.
- The use of online resources also ranked well among others. These results support the concept that participants are more likely to use electronic sources of information. Possibly, due to their
accessibility or the participants desire for privacy.

• In question 3, no financial terms or concepts ranked as defining points for adulthood.

• These results support the perception of debt as something negative. In the case of survey question 4, answers with a definite positive disposition failed to rank.

Illustrate *(Mechanical Turk)*

Method:

This concept stemmed from the interviews and interceptions that occurred in prior research. During that phase, participants largely described the feeling of their debt or the debt itself through personification. To better understand how people visually perceived debt, three different questions required participants to answer by illustrating their response. All of the illustrations were collected through the use of a third party web application. The intention of this collection method was to gather a visual perception of debt and determine what visual metaphors, if any, were most frequently communicated. Additionally, this tool was used to determine if the illustrated responses paralleled with the written replies gathered during the survey. Upon approval, each completed task, whether drawn or written, received a compensation of 10¢–20¢ cents.

*Illustration questions used in the Mechanical Turk Survey:*

1. What does debt look like?

2. Draw a picture of debt?

3. What does debt feel like?
Outcome:

**FIG. 6 SAMPLE OF MECHANICAL TURK ILLUSTRATIONS:**

(For more illustrations, refer to APPENDIX D: FIGURES 6.1–6.12, starting on page 64.)

Mechanical Turk was a critical component in gathering the volume of illustrations. Over 400 illustrations of debt were collected during the course of this process. From those illustrations, insights into how people visually displayed their emotions towards the concept of debt were uncovered. Several of the illustrations mirrored the same feelings as those recorded during the interviews and interceptions with students. There were also a number of outlying illustrations that portrayed unidentifiable visual emotions and were deemed uninterpretable. This interpretation could be the effect of the researchers own background and personal experience. Ultimately, debt was commonly illustrated as a feeling of burden, weight, or death.
Opportunity:

• An individual’s perception of debt is shown to vary across culture, personal experience, and background.
• Varied perceptions support the direction that a utilitarian solution would be far to rigid to meet the complexity of such an experience.
• Participants have both a negative and positive perception of debt.
• Participant’s ability to illustrate their feelings support a solution rich in visuals.

Observational Research

Method:

To build upon what has already been gathered, a series of student-experience observations were conducted to better understand how students chose to access important information in regard to the financial management of their education debt. The objective of these observations was to document what type of support students associated with their borrowing and where they believed they could locate such resources. Two students borrowing through federal loans, one undergraduate and graduate, took part in the investigation. Their experiences spanned from 30–55 minutes in length. Each participant was given the following task: Obtain financial information about your current education debt scenario. During the study, participants were permitted to use any resource at their disposal and not prompted or provided with guidance in any way. At the close of each student’s observation they were questioned about their experience and asked to share their thoughts and frustrations.

Graduate Participant Observation:

Before heading to the Bursar’s Office, I asked a friend to traverse with me. My motivations
for an accompaniment were uncertain. Perhaps I was driven out of a need for support, inherently believing the path to educational debt answers would be replete with peril, or maybe it was merely an inarticulable impulse. In any respect, my companion gladly accepted the offer to join what indeed transpired to be a protracted and frustrating journey for financial answers. On our walk over, I mentioned to my friend that I was soon to graduate and wanted some clarity on my education debt before it was too late.

Deductive reasoning had led me to believe that the first place to logically begin looking for answers was at the Bursar’s Office—the entity which issued bills, accepted my tuition dollars, and mailed receipts. As I approached the counter, the environment became very familiar—reflecting on my past experiences, I recalled having resolved a number of financial-related issues at that very counter. As the clerk inquired into my presence, I struggled to articulate a meaningful question, stumbling over my words while trying to formulate my thoughts. I now take solace in that even a precisely-worded and well-thought query would be rebuked—the clerk was quick to inform me that not only could he not help me, but that nobody in that office could provide support because I was in the wrong place altogether. This came as a surprise to me. I wondered how many students thought they too were in the right place only to be pointed in a new direction. Was it truly untenable to believe the entity which collected my money could, in fact, answer questions or provide supporting information about my debt?

With hopeful direction and a tinge of optimism, I made my way towards the Financial Aid Office. Once I arrived, I remembered having also stopped there once before. The setup of the office had a familiar layout, resembling the transient nature and anatomy of a modern day bank lobby, closely designed to handle a variable population with a variable demand. The layout was centered on efficiency, designed to move students in and out as quickly as possible, in contrast to providing them with a personal experience. My suspicions that I had arrived in the correct office
solidified when I approached a queue of seemingly irritated students, inauspiciously winding through the line, waiting for the next available clerk. I wondered if many of these students shared my confusion or had similar questions.

When my turn in line had come, I stepped up to the window, this time with a more precise idea of the information for which I was searching. I explained my situation to the window clerk, who seemed not much older than I, at 26 years old. Pausing for a moment, the clerk’s only remarks were directed, in a cavalier fashion, to my status as a graduate student having a poor understanding of my situation. I explained that I had been making interest payments on my unsubsidized loan, but I was not certain about their impact. The clerk reached into a drawer and pulled out a paper, circled some information and said, “That’s not us, you need to call direct loans—we can’t access that information.”

As my Financial Aid seemed so closely associated with my educational institution, I made the assumption that they were the first place to turn when looking for more information. In my effort, I sought out guidance from the institution in which I had solely invested in and I was provided in return with a phone number and web address. They were able to take my money, but wiped their hands clean of the rest. Obtaining Federal Aid to attend college was all too easy. Obtaining education debt was all too easy. Making an effort to learn more and gain an understanding through a personal conversation was seemingly nonexistent.

My paramount concern is that other students view their Financial Aid the same way: misaligned as to who is handling what and where. Even though I was documenting my Direct Loans statements and being proactive in my management, there was no entity which communicated a separation of institution and aid. There were no clear boundaries between university resources and those coming from the government, as they are mostly managed during a college experience through the institution itself.
Outcome:

Participants felt the role of their university or institution was to provide them with some form of Financial Aid support as part of their service offering. When participants sought out further information, Financial Aid Offices redirected them to the Direct Loans website or the National Student Loan Data System. Staff members redirecting students to these places openly expressed that they had little or no experience with the site and could offer no further information on the participant’s current borrowing situation. In the case of both participants, their task varied little, yet their experiences differed drastically from one another. (To see the documents given to the participants, refer to Appendix D: Figures 7.1–7.3, starting on page 72.)

Opportunity:

• The roles and responsibilities of those handling the financial resource aspect of a college experience are not clearly defined.

• Students, even with the option to use technology—opted for an in-person experience before looking elsewhere for information.

• Student experiences lacked consistency.

Card Sorting and Comparative Analysis

Method:

The objective of this analysis was to determine if available informational materials were effective in their communication and which of their design elements influenced participants’ perception of value. The comparative analysis and card sorting exercises were designed to better understand how participants partook in their information experience, forcing them to examine and question the material itself. The investigation was focused specifically on determining what
kinds of information participants valued most. In addition, what other communication or design elements affected reasoning. Materials used in the study were narrowed to reduce the overlap of information. The final arrangement consisted of 10 printed resources. (To see the materials used in this study, refer to Appendix F: Figures 8.1–8.22, starting on page 75.)

The materials were analyzed under the following criteria:

• Key Messaging: What is the key message/takeaway?
• Value and Effectiveness of Communication: How valuable is the resource and why?
• Intended Audience: What audience is being targeted by the information?
• Source of Material: Who is publishing or endorsing the material?

Based on their own criteria, each participant was asked to assign value by sorting the following communication materials, placing them in order from left (most valuable) to right (least valuable). A total of five participants ranging from freshman to graduate student, took part in the study. Four of the five student participants in the study had some degree of education debt. During the exercise, participants were encouraged to think aloud while sorting the materials, verbalizing the logic and reasoning behind their decision making. The findings of this investigation were used to formulate a visual guide for future design efforts and provide direction into the next phases of the design process.

Outcome:

There are a plethora of options for students to obtain information on financing their education; however, they lack the necessary understanding and experience to put its contents into practice. As information becomes more difficult to interpret its ability to create an impact.
sharply declines. How financial information takes shape plays an important role in defining the experience of those who it’s intended for. When asked to rank the communication materials based on value, all of the participants placed university or Department of Education materials within the top three. Participants consistently ranked materials created by third-party lenders lower in value and often clustered them together in small groups. Students not only sought value in what one participant defined as a “trustworthy source”, but also in pieces that appeared as though they were, as many participants explained, “looking out for my best financial interests,” even when they were not able specifically identify what those interests were. While a majority of the materials focused on providing information about lending and financing options for education, very few of them offered advice on which options were most advantageous in the long-term. The materials that ranked highest in value also offered little or no extension of the experience beyond the content being communicated. Nor did those same materials prompt students to become active participants, or make reference to the impact of over borrowing. Regardless of the value participants assigned to the communication materials, their presentation and inability to further the experience makes their efforts less economical.

Through the card sorting exercise, it was also determined that university and government affiliation and branding maintained their value when compared with third party lending institutions. When financial-resource materials are endorsed by a university or come with the seal of The Department of Education, students responded positively, assigning more value and credibility to those specific pieces. Students observed endorsements and assigned the information within as being “more official” or, as recorded by one participant, “closer to the chain of command, from a credible source.” Students also responded in the same way to documents that utilized the same or similar color scheme as that of their university.
FIG. 8.23 LENDING AND SUPPORT MATERIALS RANKING:

<table>
<thead>
<tr>
<th>RANK</th>
<th>FIG. #</th>
<th>SOURCE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>11.1</td>
<td>PUBLIC</td>
<td>KENT STATE UNIVERSITY, DISCOVER FINANCIAL AID, TRI-FOLD</td>
</tr>
<tr>
<td>2.</td>
<td>11.4</td>
<td>PUBLIC</td>
<td>KENT STATE UNIVERSITY, A FINANCIAL AID GUIDE FOR PARENTS AND FAMILIES, BOOKLET</td>
</tr>
<tr>
<td>3.</td>
<td>11.7</td>
<td>PRIVATE</td>
<td>PNC BANK, ONLINE FINANCIAL LITERACY EDUCATION, TRI-FOLD</td>
</tr>
<tr>
<td>4.</td>
<td>11.9</td>
<td>PUBLIC</td>
<td>FEDERAL STUDENT AID, COLLEGE.GOV, BOOKMARK</td>
</tr>
<tr>
<td>5.</td>
<td>11.11</td>
<td>PRIVATE</td>
<td>FIFTH THIRD BANK, SMART OPTION STUDENT LOAN, TRI-FOLD</td>
</tr>
<tr>
<td>6.</td>
<td>11.13</td>
<td>PRIVATE</td>
<td>CHASE, CHASE SELECT PRIVATE STUDENT LOAN, TRI-FOLD</td>
</tr>
<tr>
<td>7.</td>
<td>11.15</td>
<td>PRIVATE</td>
<td>PNC BANK, SOLUTION LOAN FOR UNDERGRADUATES, QUAD-FOLD</td>
</tr>
<tr>
<td>8.</td>
<td>11.17</td>
<td>PRIVATE</td>
<td>DISCOVER, STUDENT LOANS, TRI-FOLD</td>
</tr>
<tr>
<td>9.</td>
<td>7.18</td>
<td>PRIVATE</td>
<td>COLLEGIATE CUSTOM CHOICE LOAN, CARD</td>
</tr>
<tr>
<td>10.</td>
<td>11.21</td>
<td>PRIVATE</td>
<td>CHASE, BENEFITS OF A COSIGNER, CARD</td>
</tr>
</tbody>
</table>

Opportunity:

- Participants responded positively to documents published or endorsed by the government or university and recognized those parties as providers of credible information.
- Government and university branding proved their equity when directly compared with other materials from third party lenders.
- Participants quickly developed their own scales of value and sorted the materials according to their perception.
- The communication materials supported a singular conversation between the participant and the material itself; rarely delivering a call to action or an opportunity for further support.

Focus Group Testing (proposed)

Method:

Launched in the summative phase of the design process, focus group testing was used to identify future opportunities for improvement and measure the success and effectiveness of the completed research. Two separate groups were established based on prior user research, with
each group having its own characteristics as if to represent a segment of a larger audience. The objective was to determine what effect peer groups had on student motivation and willingness to participate, in contrast to non-peer groups. Each testing session lasted no longer than 45 minutes and was comprised of questions and round table discussion.

*Group characteristics are as follows:*

- **Group 1: Non-Peer Group**

  A total of 5–7 participants with varying college backgrounds and levels of education, resembling a loosely structured group of students. None of the participants in this group had previously met.

- **Group 2: Peer Group**

  A total of 5–7 Participants with similar college backgrounds and levels of education resembling a student organization or peer group. Participants in this group were already familiar with one another and had previously shared experiences.

**Summary of Limitations**

The primary research conducted during this study was limited to the state of Ohio and regional surrounding areas. Participants were selected based on their availability, student status and demographic. Limitations on time and resources also played a role in determining the sample size, location of research, and which methods were used to gather data. All limitations were considered in the development of this document.
CHAPTER III:
Framing the Issue

The current financial aid experience is a frustrating endeavor which invokes negative feelings among borrowers. In attempting to recognize how an optimal experience can be formulated, the problems of the current financial-borrowing paradigm must be carefully examined. Specifically, there are three areas where the current financial experience presents difficulty. First, the level of service and the number of entities which are able to provide support and guidance are not cogent with student’s expectations on where and how to obtain answers on managing their debt, thereby confusing and frustrating borrowers. Second, the complexities of the current Financial Aid system are immense and present in every stage of the process, overwhelming borrowers who seek an efficient system. Finally, the current experience fails to recognize and appreciate the changing needs of its diverse population. Each issue is explored more fully below.

Student Interactions and Expectations

With every passing semester, students who further their dependence on borrowing increase the risk and seriousness of their financial situation. In effect, the impact of their financial decision making becomes increasingly more critical as they move toward graduation. Additionally, the further in debt students become the less they are able to discern the actual impact of their borrowing. The relationship and interaction of students and their sources of support are a critical consideration in the design of future consumer related financial experiences. Such considerations inform the design process and offer new opportunities to provide students with a better experience that also meets their support needs. More than obtaining their aid, students are deeply challenged with managing it, navigating its complexity and being able to
identify the difference between good and bad financial decisions. This is evidenced during the student interviews where very little was mentioned in regard to the process of securing aid, whereas the focus was much greater on the aspects of financial management. (See the summary of interview results, APPENDIX C: FIGURE 4.10, starting on page 62.)

Financial Aid as a service does often meet the financial needs of those using it, but fails to provide students with anything further. There is a disconnect between student expectations and how support is being delivered. With each new generation of students comes new values, expectations, and modes of communication. Students’ service expectations evolve, but the service offering of Financial Aid virtually remains the same. These changes make it difficult for those delivering the service to meet the needs of its end users. The current Financial Aid infrastructure was never designed to meet the support needs of its applicants. Support in this case is defined as extraneous forces that aid in the management of resources, not the funds themselves. This could include anything from formal educational resources on financial responsibility to informal peer-sessions where colleagues discuss how to access general information about their education debt.

Whether a student is seeking financial support or advice from a peer, parent, family member or Financial Aid officer, their service expectations remain consistent. Students formulate their expectations around their initial support interactions and base future experiences by the same parameters. Growing accustomed to these originating sources, students ultimately use them to determine the value of their future experiences. If support experiences fail to meet a student’s expectations, then the services being offered become obsolete. This is apparent in the student observation study where students who attempted to access more information discovered they misunderstood their institution’s supportive role. This disconnect occurs in part because of student’s misperception of Financial Aid’s service offering. Furthering that misperception is the fact that the roles and responsibilities of Federal Aid and universities are unclear. Students are
ultimately seeking a continuous support experience, finding value in consistency and the means
in which the support is being delivered. To reduce support dependence on multiple parties, a
solution must be designed to streamline and mirror student’s expectations.

As previously mentioned, one of the initial reasons for students requiring more support
occurs in the complexity of Financial Aid, particularly managing the aid once it has been
acquired. The complexity of managing the financial experience falls in the laps of students who
require further support to interpret the service being provided. This is also reflected in the
student interviews that were conducted, where seventy percent of students mentioned their
parents playing a critical role in their financial management. (See the summary of interview
results, Appendix C: Figure 4.10, starting on page 62.) With an improved experience, students
would rely on the service for its core purpose, providing resources and not as a “catch-all” for
support. When clarification of an experience is necessary, those seeking support often return to
the service providers themselves. Poorly designed experiences lead to frustration and discontent
toward those whom they represent. If the purpose of those providing the service is not clearly
defined, then their offering is left to be defined by its users.

Avoiding the Experience

When possible, students attempt to avoid experiences that seem limiting as they contrast
the attributes of emerging adulthood and the exploration of one’s identity (Arnett, 2011). When a
student’s life experiences proceed without limitation or drastic financial threat, they are happier,
less stressed, and more comfortable. Students often choose to passively address or avoid personal
challenges when they possibly contain limiting financial outcomes. These situations over long
periods of time can bring upon mental health related issues and affect one’s ability to complete
their education. Students who make the decision to become passive in their participation form a
barrier around their understanding and often develop apathy towards their experience. These characteristics closely parallel that of decision avoidance: the choice to forego or defer making certain decisions because of possible situations that come as a result (Anderson, 2003, p. 142).

When confronted with the task of making important financial decisions, students reported feelings of burden and anxiety. When asked during a survey, “What does student debt feel like?” participants responded, “Student debt is no fun, It’s kind of a rain cloud that is always following me around.” (See participant 6, Appendix C: Figure 4.5, on page 56.) Anxiety, burden, and stress are feelings that students, including those most notably in process of developing their adult identity, try to avoid. Students who choose to avoid becoming active participants in their financial management experience are also choosing to place blame on their situation. In short, students often maintain their existing course of experience, putting off decisions about their personal finance through forms of decision avoidance. This aspect of avoidance or deferral is also due in part simply to feeling overwhelmed (Anderson, 2003, p.139). It is the combination of these frustrations that lead to an apathetic, yet passive perspective.

**Fluctuating Support Needs**

Students and their support needs fluctuate over the course of their higher education experience. These fluctuations make it ever more difficult to address their needs and design solutions that meet student service expectations. Additionally, these lulls affect the kinds of information being presented and its timing. In effect, creating new challenges in an effort to keep students actively engaged in their position on personal finance. Students tend to address their financial issues on a per need basis and often wait until those meetings to further discuss the details of their debt with the parties involved in their financial management. Only when borrowing or the accessibility of their education becomes threatened do students become
more naturally motivated to understand their financial situation. As captured during student interviews, students and their approach to their financial management is largely reactionary. (See the summary of interview results, Appendix C: Figure 4.10, starting on page 62.)

Also affecting students and their education debt is their ability to lock themselves into a major. Forty percent or more of students who participated in the interviews changed majors within the first year and a half of their college experience. Those who decided to change their major did so twice on average before settling into their chosen field of study. While this thesis investigation is not focused on helping students declare a major or a professional career path; increasing the awareness of the long-term effects of excessive borrowing may have a direct impact on their decision making. Choosing a major is also another one of the most impactful decisions students will make during the course of their college experience. Most of those challenged by this, reinforce the concept that students at the young age of eighteen have not yet amassed enough life experience to make truly informed decisions about their futures, let alone their finances. The longer it takes a student to declare a major the more resources they will require in order to complete their degree.

A student’s perception of education debt diminishes as their balance supersedes their level of financial experience and earning. Whether positive or negative, financial experiences offer students learning opportunities through concrete examples. As incoming freshman, technical financial language and concepts prove less effective without direct application of the principles being delivered. It’s tantamount to teaching a fifth grader how to balance a checkbook. The user must fully appreciate the utility of the information before they can unlock its potential. When students begin their college experience the majority of them lack the financial experience necessary to make connections between financial concepts and real-world applications. The use of debt as a concrete example serves as a benefit to the education aspect. Students who have acquired
a conceivable percentage of debt also have a foundation to consider financial concepts against. This debt serves as reinforcement, making the seriousness of its outcome, management and long-term impact real.
CHAPTER IV

Considerations for Designing an Optimal Experience

To design an optimal experience is to address the financial issues facing students and graduates while providing them with the necessary tools to better understand their situation—all while generating positive collaboration, value and general awareness for the issue. Conveying the importance of design into a pivotal stage of a student’s life is an opportunity to generate great impact. Students make up a vulnerable demographic, lost in a sea of inflated, meticulous, and poorly-conveyed financial information and experiences. The design of an optimal experience is one informed by the perspective of those most affected and only created with an understanding of how those experiences could be leveraged as a means to reinvent. In building a more user-centric paradigm, there are multiple considerations. First, timing of information is critical and must align with a student’s shift toward autonomy. Next, the user’s expectations must be appreciated. Finally, management roles must be well defined and all opportunities to involve the students into the design process must be considered. Each aspect of designing an optimal experience is described in more detail.

Shaping Information and Identity

To have the greatest impact, communication and learning must occur when the development of a student’s identity parallels their shift toward autonomy. The development of this identity is one of many factors to consider when designing a more user-centered financial experience. Not only is it important to understand the new challenges facing students, but also how those challenges manifest and the ways in which they are addressed. Traditionally, students begin their journey into higher education as self-managers and later make the shift toward peer collaborators. Freshman students heading to college for the first time find themselves at a point
of departure from the development of their prior identity. Around their third semester, students start to settle into their major and begin making the shift from interdependent to autonomous (Chickering et al. 1993). (fig. 9)

**FIGURE 9. POINT OF CONVERGENCE:**

This migration marks the point in which the development of their adult identity begins to formalize; an identity that will define them for the rest of their adult life (Chickering et al. 1993). That same shift also marks the difference between students being self-governed and independent to seeking out social peer groups for collaboration and personal validation. Within that push toward autonomy is the realization of social capital and its potential for identifying and accomplishing goals (Tierney et al. 2006, p.1690). The longer students explore their higher education experience, the more likely they are to find value in collaborating with their peers. This shift becomes an important part of a student’s development, as it identifies opportunities for peer counseling to take effect.

**Emerging Adulthood**

Emphasis on the timing of information and how it is best delivered becomes increasingly important as students and their development are taken into consideration. (Supiano, 2008, p. 7). Personal growth and development are a gradual lifelong process. A portion of that process known as emerging adulthood, occurs between the ages of 18–25; roughly the time frame of a traditional
college experience (Arnett, 2007). This stage in a student’s development also marks a point in their lives when many of them will face their first financial challenges, while being solely responsible for the outcome (Borden, 2008, p. 24). Emerging adults begin their freshman experience facing a number of personal, financial, and psychological challenges unforeseen to them. At the onset of their experience, students are trying to find their personal identity, develop new friendships, and define themselves amongst their peers (Arnett, 2007). In conjunction with the overwhelming experience of entering college, the timing and complexity of those obstacles makes them even more difficult to manage. For a number of students, these circumstances and social pressures are being faced for the very first time. It is critical to note the turbulence of this stage and the rates in which each student adjusts into their own college experience. The number of personal challenges and circumstances faced by students create a poor environment for the retention of financial information. This understanding provides those shaping the experience both reason and direction while placing emphasis on the prospective impact of design during this pivotal stage of a students experience.

Understanding the development of students within emerging adulthood helps to inform the style of communication needed to address them effectively. The correlations between student development, adult identity and education debt, not only inform the design opportunity, but provide insight into how an attempt to deliver information would take shape and be most effective in reaching its core audience. Emerging adulthood serves as a transition point between adolescence and a student’s path to becoming a young adult. During this transition, strict rules and institutional direction contrast the inherent development of a student’s identity (Arnett, 2011). Any experience that places limitations on a student’s ability to explore their identity has a perception of lesser value. Studies suggest that those in this phase of their development are no longer seeking the same stable adult roles as those of their parents, or, more importantly, those
providing their financial resources and support. Students at this point are described as being in a stage of noncommittal exploration—looking to develop themselves as a point of stability before seeking out more enduring lifelong direction (Arnett, 2011). Until students make the shift from emerging adults to young adults, they will continue to seek out experiences that fulfill their natural disposition toward personal growth and exploration (Arnett, 2011). This transformation defines how and what students value during their personal development. Additionally, this change in perspective marks a point of disconnect between the parties taking part in the experience and those creating and supporting it.

**Understanding Service Expectations**

In the task of designing an improved financial experience, student expectations are an important element. The development of personal service expectations are rooted in a student’s past life experience. Students gain their initial foundation of financial capability through socialization: a process of learning through direct and indirect social encounters and experiences. This collection of personal experiences define a person’s financial attitude and inform their future decision making. Through this process of learning, students also develop personal service expectations as to how financial services should be delivered (Jorgensen et al. 2010). Specifically, services delivered in support of their educational resources, Financial Aid, and those administering the support itself.

Socialization experiences not only come from parents and family members, but often from the interactions and encounters that occur within the environments themselves. This series of interactions and encounters help shape students’ expectations; as a result, their financial attitudes begin to formalize. Environments also play a role in forming one’s expectations of a service. If a student has been brought up in a community where negative financial attitudes and
behaviors were reinforced, it is likely they too will carry on the traits of such an environment (Roberts. 2001 p.214). As seen during the interviews, students who’s parents underwent a divorce were more likely to face financial hardship themselves, possibly the direct effect of a turbulent socialization experience. Additionally, students who’s parents were business owners were seemingly more aware of their financial situation. (See the summary of interview results, APPENDIX C: FIGURE 4.10, starting on page 62.)

As students encounter more complex financial situations, they begin to rely on those most willing to provide them with a form of support that best mirrors their initial socialization experience (Jorgensen et. al. 2010). As evidenced in the research conducted for this thesis, parents play a critical role for the majority of students, in their financial management experience especially at the onset. Students rely on parents or family members for the bulk of these responsibilities and look to them for guidance in most financial situations. The situation created by this scenario is one where the bulk of responsibilities and knowledge lie in the hands of a third party. Over time this form of management creates a void in the experience and lessens the opportunity for students to fully grasp their situation. This becomes increasingly apparent as students are unable to disclose the details of their lending situation and graduate without knowing how to proceed over their education debt.

Based on findings, management responsibilities included:

- Creating a budget
- Filling out the FAFSA
- Managing the Financial Aid application process
- Providing basic financial resources
- General financial guidance
Defining Management Roles

The impact of education debt and financial decision making are greatly reduced in situations where parents maintain strong management or support roles in a student’s financial experience. Students who rely heavily on their parents lose the perspective of ownership over their investment and the motivation necessary to address their situation. In order for students to gain such a perspective they must take part in the experience, discover its value, and ultimately define a sense of personal accomplishment.

Of the students who were interviewed, seventy percent of them relied moderately on their parents for many, if not all, of the management responsibilities mentioned previously in this document. During the interview process, one student stated, “My parents help me with my loans. I’ll worry about them after I’ve graduated.” (To see the complete summary of this interview, Appendix C: Figure 4.9, starting on page 61.) This reinforces the concept that students often have a high degree of dependency when it comes to making financial decisions. This dependency is a necessary part of the learning process reflected in socialization, but as students complete their college education the task of repayment falls solely on their shoulders.

Additionally, students relying so heavily on third parties for translation emphasizes the complexity of the information being disseminated and the lack of experience on the students behalf. The fact that students rely on their parents is proof that there is a problem—when the targeted user must rely on others to help translate an experience it is deemed inefficient. Information does not exist so that a third-party must translate. It exists to help and inform its targeted user. Design can be viewed in the intangible as a buffer between experience and its intended user. When the consideration of design is missing, another buffer, i.e. a third-party translator (such as a peer, parent, or family member) must take its place. A well designed
experience is more powerful than a third-party translator. Design keeps both the information and experience unique to the intended user. There too lies the risk that those delivering the translations might in fact misconstrue the validity of their original content.

Parents who operate in management capacity of their child’s financial experience likely do so voluntarily. At the onset of the college experience, students are shifting toward becoming emerging adults, but have yet to fully become interdependent. In effect, they are looking for complete guidance and are likely waiting on someone else to guide them, only making decisions when confronted. Financial education, whether instituted in a college classroom, or through parental socialization, has a lesser effect if students have not amassed a degree of personal experience themselves. If basic financial concepts have not already been a part of their experience, then it is less likely they will retain enough information or improve upon their financial capability through those existing modes of delivery. Because financial capability begins its development through socialization and personal encounters, it is likely in order to further a student’s understanding that they must undergo an experience themselves.

**Vehicles for Change**

Student peer groups become greatest vehicle for change in the process of creating better education debt experiences. Students themselves provide a unique perspective on the issue not found in any other party. Additionally, students unlike others involved in the design process, are most effected by the outcome, thus enforcing a rationale for their effort. Not only are they uniquely poised to accept the challenges of managing education debt, financial decision making or providing support, but they also generate a foundation for the creation of a participatory design culture.

Peer groups are typically the result of individuals forming bonds around their
commonalities and shared experiences. Individuals typically form these bonds around attributes such as: geographic location, race, gender, culture, or common interest. The unique bond that forms around specific group attributes, bringing together individuals, is defined as a Fictive Kinship (Tierney et al. 2006, p.1691). This bond forms around group commonalities and allows students to maintain their collective purpose. Students are seeking opportunities for peer collaboration as they make the shift toward autonomy and realization of social capital. The formation of these groups then becomes inherent. With students seeking personal validation and support roles from their peers, the development of these groups emerge as an opportunity for design. The application of peer groups as a vehicle for change could be utilized in two ways. Both offer different outcomes, characteristics, and address their own specific issues.

1. Peer Groups as Focus Groups:

Introducing peer groups into the design process would provide great insight in both the formative and summative aspects of the research phase. Unlike participatory design, the responsibility of gathering research, synthesizing data, and executing solutions would fall upon the design team. The design team would use insights gathered from the focus groups throughout the project to inform their decision making. As prototypes are created they could be introduced to the group, tested and evaluated to determine their value. The drawback to this solution is that, here, again we have a process of translating an experience which may or may not result in a successful solution.

2. Peer Groups in Participatory Design:

Shared education debt experiences top the list of commonalities among full-time students. By increasing the awareness of education debt, pushing into the realm of open public conversation
and discussion, it too can serve as a basis for the formation of peer groups. A group in support of effecting change and improving the overall financial experience of those involved. Sharing an experience allows students to leverage their empathy toward the betterment of their cohorts. This valuable insight allows them to address the design aspect from an internal perspective.

Instead of being designed for, from the top down, students working together in support of one another are designing for themselves from the bottom up. Peer groups and the frequency of their interactions also support the consideration of their application in the design process. Interactions between group members occur more frequently than those of students and their parents or family members. This frequency allows group members to constantly test and retest their ideas over the course of their groups existence, paralleling an iterative design process.

Additionally, allowing students to take part in a process of participatory design uniquely positions them as stakeholders, increasing the likelihood that they will become active participants in their own experience. In a participatory design culture, the community of individuals must be joined together through aligned interests and clearly defined objectives—very similar to the inherent formation of peer groups. In these communities, design plays a critical role in organizing the ideas and interests of those involved. Clearly communicating objectives strengthens the group and brings value to their efforts. The application of design allows the community to focus on developing solutions and providing support.

Participatory design uniquely offers an inherent process of prototyping and testing. This form of design allows members of the group to partake the in the creation of artifacts, both tangible and intangible, in support of a better experience. Because its naturally iterative process, student members have the opportunity to visit and revisit design opportunities. Ultimately this exchange leads the group to create new forms of value and innovative ways of improving upon the existing experience.
Certainly, it must be recognized that strictly localized approaches in peer-group settings may not influence immediate positive change affecting the financial aid system on the broadest levels. However, it is the existence and formation of these groups itself that offers utility: participants become designers of their own experience, building knowledge and sharing experiences with others. Further, there are potential tangential benefits: the solutions being developed by these groups may in fact prompt those in the position of power to react, possibly creating the catalyst for new legislation or policy.”
CHAPTER V

Closing Remarks

Clearly outlining the issues to be addressed and the objectives in which to address them helps set the course for design and ensures that there is a common understanding of the how success will be defined and measured. An optimal experience must feel established, yet personal, while having the flexibility to grow and generate equity in its brand. The solution must feel as though it is an integral part of a student’s college experience, positioning itself as a resource for support and information—one that provides simple answers.

The role of co-creation in the process of developing solutions plays an integral part in creating a sense of ownership over the outcome. This approach also positions students as active participants and stakeholders in their own experience. Consideration of the audience in the design process ensures that their specific needs are at the forefront of the effort. The design must heavily consider the audience both aesthetically and systemically. This understanding informs the tone of communication, timing of intervention, and mode of delivery.

Delivering information to students at a time in their education and personal development when they are ready to accept responsibility and take a more active role increases the probability of having a greater impact on their financial capability. Converging factors identify the third semester as the best time to design a financial intervention with the intention of meeting their support needs and expectations.

Converging Factors for Consideration:

- Students identity shifting from interdependence to autonomy.
- The inherent formation of peer groups in an educational setting.
- The average number of times students change their major and when this occurs.
• The point in which a student’s debt is still within a range of conceivability.

• Increased number of newly shared education debt experiences.

Ultimately as designers, it is critical that we understand which methods of research best evaluate our audience and how their evolution affects our practice. In the design of student related financial experiences, it is important to gain insight into the background of the audience in question and to think about how the findings play a role in shaping their experience. In order to find success in its design, financial experiences must be able to adapt, be repurposed, and meet the ever changing needs of their audience. Bringing the audience into the design process allows the design team and audience themselves to directly impact the final deliverables. This perspective creates a sense of ownership, value, and accomplishment not found in most traditional approaches to design.

Identifying these relationships become increasingly resourceful and play a strong role in guiding the design process. If we understand where expectations are formed, we can design to meet the needs of those perspectives. This is important as it stresses the opportunity for design to address the issue of education debt. Design serves as a positive vehicle for change in an area where students need assistance. Student’s are in need of a better experience, one that provides them greater value in support of their future growth as students and members of the greater society. Without change, students will continue to pursue their financial experiences with apathy or carelessness; consequently, debt rates will continue to rise with inflation and new generations of graduates will face adulthood on the cusp of financial ruin.
APPENDICES
Appendix A:

Research and Design Process
Appendix A:

Research and Design Process

**FIG. 2: DESIGN AND RESEARCH PROCESS MODEL:** The model above was employed over the course of the project. Each phase of the process allowed iteration to occur giving the designer the ability to move freely between each phases. Each section of the process model was focused on a different aspect of development. The model was broken down into three sections, Formative (research and how the issue is to be defined), Generative (innovation or concept development), and Summative (value or the definition of an optimal experience).
Appendix B:

Education Debt Experience Map
Appendix B:

Education Debt Experience Map

**USER ASSUMPTIONS**

- CARELESS WITH THEIR MONEY
- VIEW THEIR FINANCES AS INTANGIBLES
- USE THEIR FINANCIAL AID TO MAKE FRIVOLOUS PURCHASES
- UNAWARE OF THE ACTUAL AMOUNT OF DEBT THEY ARE ACCRUING.
- HAVE NO FINANCIAL PLAN OR BUDGET
- VIEW THEIR FINANCES IN A SHORT-TERM PERSPECTIVE
- UNABLE TO SEE LONG-TERM BENEFITS
- UNAWARE OF THE ACTUAL (REALISTIC) MEDIAN INCOME OF THEIR PROSPECTIVE CAREER AFTER GRADUATION.
- LET THEIR PARENTS MANAGE THEIR FINANCES
- NOT SURE HOW TO ESTABLISH CREDIT
- UNSURE WHERE TO FIND RESOURCES TO ANSWER SIMPLE FINANCIAL QUESTIONS
- AVOID THEIR FINANCIAL REALITY

- AVOID MAKING DECISIONS BY MAKING EXCUSES OR IGNORING THE SITUATION
- UNAWARE OF THE LONG-TERM EFFECTS OF EDUCATION-DEBT ON THEIR LIVES AND HEALTH
- UNAWARE THEIR KIND OF LOAN OR WHO IS GRANTING IT.
- HAVE DIFFERENT FINANCIAL MOTIVATIONS, BEHAVIORS, AND LITERACY SKILLS THAN THOSE OF PAST GENERATIONS
- DO NOT FIND THE BURSAR HELPFUL AS A SOURCE OF INFORMATION
- PARENTS FEEL THEY ARE DOING THEIR CHILD A SERVICE BY MAINTAINING THEIR FINANCES
- PARENTS DO NOT INCLUDE THEIR CHILD IN THE FINANCIAL DECISION MAKING PROCESS
- DO NOT TRUST THEIR CHILD TO MAKE “SMART” FINANCIAL DECISIONS
- PARENTS HAVE SOME IF NOT TOTAL ACCESS TO THEIR CHILD’S FUNDS
- PARENTS OR DECISION MAKERS HAVE LITTLE OR NO EDUCATION-DEBT THEMSELVES

**FIG. 3: USER ASSUMPTIONS:** In order to address the audience the research must first prove or disprove the existence of certain assumptions about the those in question. These assumptions were generated prior to the creation of the 5E Model and used to guide the creation of questions and the initial direction of research.

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**FIG. 3.1: 5E MODEL:** The model above displays all of the elements that make up each phase of the experience. By listing and categorizing each element, the experience itself becomes easier to visualize. This becomes increasingly important in the model of education debt as many of its aspects are intangible.
Appendix B:

Education Debt Experience Map

**Fig. 3.2**: Education Debt Experience Map: The model above displays the process of obtaining education debt, the reasons associated, and the parties involved. By placing the experience into the SE Model, the values associated with each phase becomes more apparent. A disconnect occurs in how people engage with the current experience and their transition out of the experience and beyond.
Appendix B:
Education Debt Experience Map

**FIG. 3.3: EDUCATION DEBT EXPERIENCE TRENDS.** The model above displays the process of obtaining education debt, the reasons associated, and the parties involved. By placing the experience into the SE Model, the values associated with each phase becomes more apparent. A disconnect occurs in how people engage with the current experience and their transition out of the experience and beyond.
Appendix C:

Student Interviews and Interceptions
Appendix C:

Student Interviews and Interceptions

FIG. 4: PARTICIPANT 1:

The following interception began outside the student center on the campus of a public state university. The majority of the interview occurred in her artist studio on campus.

Participant 1 was a first-year graduate student during the time of the interview.

EXCERPTS FROM INTERVIEW:

1. Enrolled in graduate school for the reason of being in the right place at the right time • PARTICIPANT 1 wasn’t sure of where she was ultimately headed, but liked the idea of exploring her options while in a learning environment. “More than its consequences, I am interested in making good work and getting as much out of this experience as possible.”

2. Completed her undergraduate education debt free • PARTICIPANT 1 mentioned her parents being separated and how their separation placed stress on their ability to continue to pay for her education. This was also a difficult time for her as well. Her father had recently fallen into financial hardship and was filing for bankruptcy and foreclosure on their family home. They did however manage to pay for the entirety of her undergraduate education.

3. Was unaware of the total cost of graduate tuition • PARTICIPANT 1 had never used Financial Aid until the most current semester. Her grandparents agreed to cover her first year of graduate school. Even with minimal interactions, her financial aid experiences had left her with a negative perception. Additionally, she regretted that she hadn’t learned more about grants and scholarships before turning to loans.

5. The task of learning more was too daunting • PARTICIPANT 1 felt there were no reliable or good resources for obtaining more information on the topic of using Financial Aid.

6. Money was boring • PARTICIPANT 1 personally felt that she was irresponsible with her money and made poor financial decisions. “Everything is telling me that’s fine, it’s okay to have a lot of debt, you’re in school. Everyone has debt, it’s not a big deal.”

7. Comfort was important to her • PARTICIPANT 1 felt that taking care of her finances from the comfort of her home was important. She mentioned even the act of having a conversation about her debt was something that made her feel better about her financial situation. “It felt good to talk about this, I like keep it inside.”
Appendix C:

Student Interviews and Interceptions

FIG. 4: PARTICIPANT 1, CONT’D: EXCERPTS FROM INTERVIEW:

8. On the weight of her looming debt, It’s not real, I can’t see it, I can’t touch it. It’s totally not a part of my reality • PARTICIPANT 1 acknowledged that she frequently made bad financial choices. She admitted to consistently over extending her credit cards and letting her bills go past due. “You can buy whatever want, but you don’t have to deal with the consequences till much later.”
Appendix C:

Student Interviews and Interceptions

FIG. 4.1: PARTICIPANT 2:

The following interview took place with this participant while he was on break during work. He agreed in advance to set aside this time to have a conversation about his education debt situation.

Participant 2 was a first-year graduate student during the time of the interview.

EXCERPTS FROM INTERVIEW:

1. Becomes anxious when it came to finance in both the short and long-term • PARTICIPANT 2 mentioned a sit down conversation with his parents on a per semester basis and a discussion of the coming semester’s budgetary constraints. This conversation was a point of tension between him and his parents and an experience he hated facing.

2. Parents played a leading role in his financial management • PARTICIPANT 2 acknowledged that he relied heavily on his parents for financial guidance and help in creating a personal budget. “The budget is put into place as a preventative measure, helping me to better manage my spending.”

3. Believed in their validity • PARTICIPANT 2 felt that the information his parents provided was the best information possible. He also looked to them for guidance before seeking out information from any other resource.

4. Took a passive approach • PARTICIPANT 2 only addresses his personal finances when it is completely necessary outside of the regular conversation with his parents.

5. Was unaware of his total debt • PARTICIPANT 2 knew what kinds of loans he had (Parent Plus), but was unable to disclose how much he owed.

6. Trusted in the value of his education • PARTICIPANT 2 felt that better opportunities came as the result of more education. Additionally he felt that education debt was nearly unavoidable. He believed that the more education he acquired the more equipped he would be in covering his investment.

7. Worked throughout the school year • PARTICIPANT 2 worked to supplement his living expenses and to maintain his standard of living.
Appendix C:

Student Interviews and Interceptions

**FIG. 4.2: PARTICIPANT 3:**

The following interception took place outside of the campus library in an open public environment. This particular participant was passing through campus on his way home after class and agreed to sit down and have a conversation regarding his education debt.

*Participant 3 was a Senior during the time of the interview.*

**EXCERPTS FROM INTERVIEW:**

1. *My debt feels like a big angry grizzly bear* • PARTICIPANT 3 mentioned his past financial woes and how they had impacted his future. “I was living a champagne lifestyle on a beer budget via credit cards.” He admitted to having dealt with harassing debt collectors in the past and now realized how difficult his journey had become because of poor decisions. “I ignored the debt until it became a matter of legality and the courts.” When he graduates in the following semester he will have accrued over $35,000 in student loan and credit card debt.

2. *Worked throughout the school year* • PARTICIPANT 3 worked two jobs while taking on a full-time course load. One of his jobs was a volunteer position which furthered his education, but was also taking away from the time he could have been earning. He supplemented his earning with student loans, allowing him to not have to solely focus on working to make ends meet every semester.

3. *Mentioned other students talking about their education debt* • PARTICIPANT 3 felt that, unless it was a case of extremes, debt was not something typically brought up in conversation.

4. *Kept a loose budget* • PARTICIPANT 3 admitted to trying to keep a budget in his head at all times. His poor past financial experiences stressed this upon him. He believed it was an important part of getting back on his feet after graduation.

5. *His debt served as a constant reminder* • PARTICIPANT 3 admitted that getting in financial trouble was one of the lowest points of his life, but he referred to that experience regularly to inform his future decision making.

6. *Seeing the number was critical* • PARTICIPANT 3 felt that seeing the actual amount of debt a person had was what made the difference in their perspective. He believed that if more students had a better idea of what their experience was costing them, they would be more likely to approach their situation with caution.
Appendix C:

Student Interviews and Interceptions

FIG. 4.3: PARTICIPANT 4:

The following interception took place outside of an on-campus job fair. This participant was waiting for the fair to open when she agreed to answer a few questions regarding her financial situation as a student.

Participant 4 was a junior during the time of the interview.

EXCERPTS FROM INTERVIEW:

1. My friends complained • PARTICIPANT 4 mentioned she had often heard her friends complain about their education debt and how it was going to impact their lives after graduation.

2. Her father served as a constant reminder • PARTICIPANT 4 mentioned that her father was paying for the majority of her college education and the fact that he closed every phone conversation with his famous last words, “be responsible with my money.”

3. Parents played a leading role in her financial management • PARTICIPANT 4 spoke of a sit down meeting with her parents that occurred before the start of every semester. The purpose of this meeting was to come up with a budget and to have a conversation about how she had been managing her finances.

4. Used Financial Aid for the first time • PARTICIPANT 4, as a junior took out her first student loans. Her parents played a critical role in getting everything set up for her to borrow. She felt the experience of having debt was one that would serve her in a positive manner as long as the amount of money she took out in loans remained manageable. “Debt forces you to get a job, work harder, and become more responsible with your purchases.”

5. Had loans, but no idea • PARTICIPANT 4 admitted having taken out loans to cover the cost of her education, but had no idea as to the details of her borrowing. During the interview she was unable to distinguish the differences between public and private sources of lending.

6. Made considerations before making decisions • PARTICIPANT 4 considered the starting salary of her major before making a final decision. That consideration however didn’t factor into her choice of university.

7. Her parents were business owners • PARTICIPANT 4 stated that having parents that owned a business not only informed what area of study she pursued, but also her perspective on money and managing those types of experiences.
Appendix C:

Student Interviews and Interceptions

**FIG. 4.4: PARTICIPANT 5:**

The following interview took place in a classroom directly after class. There, the participant agreed to talk about his current financial situation.

*Participant 5 was a Junior during the time of the interview.*

**EXCERPTS FROM INTERVIEW:**

1. **Followed his father’s budget • PARTICIPANT 5** had a $500 per month budget and still felt like there were times he had to excuse himself from his friends and extra-curricular activities. He admitted that it was difficult for him to follow the budget put in place by his father. “Do I stay on that budget the whole time? No, that never happens. Things fluctuate throughout the month and there are some months where I just can keep up with it.”

2. **Looked to his father for answers • PARTICIPANT 5** mentioned his father as his main resource for financial guidance, especially when it came to investing in his education. Based on his father’s financial success, he trusted that his father’s input was completely valid.

3. **Paid for his last year in school •** his parents agreed at the onset that they would pay up to $90,000, anything beyond that became his sole responsibility. That dollar amount was used to cover the entirety of his college experience.

4. **PARTICIPANT 5** also mentioned having two other siblings enrolled at public in-state institutions.

4. **Had to borrow for the first time • PARTICIPANT 5** admitted to considering his fixed monthly expenditures before borrowing. That aside, he mentioned that he wasn’t completely certain on the total amount he had borrowed or the amount of debt he would be facing after graduation.

5. **His parents were business owners • PARTICIPANT 5** spoke of his upbringing and how that effected his ability to presently make financial decisions. He strongly believed that his parent’s business made up a large part of his “success.”

6. **PARTICIPANT 5** had changed his major after his third semester of college.
Appendix C:

Student Interviews and Interceptions

**FIG. 4.5: PARTICIPANT 6:**

The following interview occurred during the researchers own office hours. The researcher had heard the participant mention his education debt previously and later asked the participant to share his experience.

*Participant 6 was a sophomore during the time of the interview.*

**EXCERPTS FROM INTERVIEW:**

1. *Felt anxious about his debt* • PARTICIPANT 6 described his situation, "student debt’s no fun, It’s kind of a rain cloud that’s always following me around. It’s depressing knowing that a lot of my initial salary will be eaten up during my repayment."

2. *Parents played a leading role in his financial management* • PARTICIPANT 6 mentioned a recent sit down conversation he had with his parents regarding his education debt and how that conversation had made his situation seem more manageable. His parents handled the majority of his Financial Aid giving him the ability to stay focused on his education. He admitted to being preoccupied with school and not even thinking about his debt.

3. *Had a poor grasp on his debt* • PARTICIPANT 6 admitted that he felt embarrassed about not knowing more, even after having had conversation with his parents. He did although, believe that his parents had done a good job in managing his debt.

4. *Valued fulfillment over security* • PARTICIPANT 6, even with knowledge that he was going to lose his scholarships, changed his major and transferred to a different university. This had been a difficult decision and one that his parents originally opposed. “It’s kind of depressing to talk about too.” Here he questioned the value of his education, “getting a degree isn’t about creating a security blanket for yourself, it’s about following a path to do something you truly enjoy.”

5. *The FAFSA had been a dreadful experience* • PARTICIPANT 6 recalled his apathy for the process and how much he had dreaded going through it every year.

6. "The only way up is to know where you stand." • Seeing his total balance made him start to think about creative ways to stay afloat and how he could begin to make smarter decisions. Prior to knowing the depth of his financial situation, he had relied on the dream of getting a job as an excuse for his poor spending behavior.
Appendix C:

Student Interviews and Interceptions

FIG. 4.6: PARTICIPANT 7:

The following participant was found through another interview experience. The participant was contacted and agreed in advance to set aside time to have a conversation about his education debt situation during his lunch break.

Participan 7 was a Senior during the time of the interview.

EXCERPTS FROM INTERVIEW:

1. Avoided talking about his financial situation • PARTICIPANT 7 had received a scholarship through his grandparents employer, who paid as a result of an on the job illness. “It’s nice not to have the stress of figuring out where to get the money.” Due to his situation, he was able to avoid much of the “hassle” and stress of the Bursar’s Office.

2. PARTICIPANT 7 held a job while enrolled as a full-time student. This allowed him to live off campus, something that extended beyond the amount of his $8,000 scholarship.

3. Friends spoke about their financial experiences • PARTICIPANT 7 mentioned hearing of issues with de-registration due to lack of timely payment. Regardless of his usually positive Bursar experience, he admitted that dealing with money was stressful.”Everyone is dealing with it, I think others want to talk about to relieve some of the stress.”

4. PARTICIPANT 7 spoke of a friend that had considered suicide as a solution to overcoming his education debt. This person was unable to go home for advice and his parents were unable to cover the cost of his education. He also mentioned others who had considered dropping out to due to financial reason.

5. PARTICIPANT 7 was the first member of his family to go to college.

6. Lack of financial burden equates to a lack of financial responsibility. PARTICIPANT 7 admitted that he had a problem with overspending. “If I had all of these loans I would be more conscious about my spending. I would want to save my money to pay all of that off. I wouldn’t want that number over my head.”

7. Relied on online resources • PARTICIPANT 7 had a general understanding of the types of lending options available and how they varied. He also mentioned finding his loan information on the university’s Financial Aid website.
Appendix C:

Student Interviews and Interceptions

FIG. 4.7: PARTICIPANT 8:

The following participant was approached during his office hours as a graduate assistant. Here, he agreed to share his experience as someone who paid for college from an out of state perspective.

Participant 8 was a second-year graduate student during the time of the interview.

EXCERPTS FROM INTERVIEW:

1. **Not aware of his total debt** • **PARTICIPANT 8** estimated his education debt at approximately $76,000. “maybe more,” but wasn’t completely sure of where he stood.

2. **PARTICIPANT 8** attributed the height of his debt to his choice of a demanding major. During his undergraduate education he took a much heavier course load in order to expedite the process. In effect, this made it more difficult to support himself with a job. He described his undergraduate education as twenty percent work, eighty percent school.

3. **PARTICIPANT 8** changed his major in the spring of his first year.

4. **Felt that he was poorly informed when it came time to borrow** • **PARTICIPANT 8** didn’t know the cost of his undergraduate education. He had some idea as to the amount of loan money he was getting during that time, but never felt the debt was a concern.

5. **Out of state tuition** • **PARTICIPANT 8** considered the cost of his education more heavily after he had enrolled in an out of state graduate program. He felt his debt then became more of a psychological burden. “I’m probably going to be paying this off for the rest of my active life, at least 20–30 years.”

6. “It just became a burden mostly because of my unfamiliarity with the situation of having to have that kind of financial responsibility and not ever having the financial security to support that kind of responsibility.”

7. **Trusted in the value of his education** • “I rationalized the debt by saying ten years from now my education would make such huge difference in my life that, no amount of money could effect that. Being in the position, a highly secure job, doing what I want to do in ten years, there is no dollar amount on that. The masters degree was the only means I had of obtaining it.”
Appendix C:

Student Interviews and Interceptions

FIG. 4.7: PARTICIPANT 8, CONT’D: EXCERPTS FROM INTERVIEW:

8. PARTICIPANT 8 • had never held a financially supportive job where he felt comfortable. He also felt that his Financial Aid money didn’t contribute to wise spending habits.

9. Saw a difference between money earned in a paycheck and money provided by Financial Aid or loans • PARTICIPANT 8 "I think that you still take into heavier consideration what you do with that money than you do when someone gives you that check with no immediate responsibilities tied to it.

10. Had a Work Study grant • PARTICIPANT 8 acknowledged that his grant had changed the way he viewed his aid money, "I look at my money differently. I am only getting so much money every two weeks and I have to budget for that." He also mentioned his difficulties in managing his Financial Aid refund check. “It’s hard to budget a check for three thousand dollars. It just feels like a check for three thousand dollars it doesn’t feel like six months rent, groceries, that sort of thing. I would say that I’d be more responsible with my money if I were being held more accountable to it immediately or I had to earn that money in a different way.”

11. Looked to his colleague for answers • PARTICIPANT 8 mentioned that he mostly relied on a colleague as a primary source of financial advice. Additionally, he didn’t trust his peers for the final “say so” and usually sought advice from varied sources.

12. PARTICIPANT 8 attributed some of his poor spending habits to his upbringing as an only child with separated parents.

13. PARTICIPANT 8 felt he hadn’t yet had enough experience or opportunity to better his financial understanding.
Appendix C:

Student Interviews and Interceptions

FIG. 4.8: PARTICIPANT 9:

The following interception occurred simultaneously with participant 10. They both agreed to share their financial experiences while they ate lunch. The interview occurred in an open campus environment.

Participant 9 was a Freshman student during the time of the interview.

EXcerpts FROM INTERVIEW:

1. Had a scholarship, but was still uncertain • PARTICIPANT 9 mentioned that she was offered “grants,” but had turned them down because she didn’t want to repay them.

2. PARTICIPANT 9 displayed little understanding of the varying types of Financial Aid, but shared the fact that her parents had been paying for a portion of her college tuition.

3. Had debt, but little direction • PARTICIPANT 9 had been unable to describe her current financial aid situation and could only guess at the amount of education debt she had and would accrue.

4. PARTICIPANT 9 held a part-time job while being enrolled as a full-time student.

5. Trusted in the value of her education • PARTICIPANT 9 had no concerns about her education debt. She felt that going into debt was part of the experience of going to college and that the financial aspect was something she would deal with after graduation.

6. PARTICIPANT 9 was not concerned about the economy or prospective job market. She trusted that the major she had chose would provide her with a job opportunity.

7. PARTICIPANT 9 mentioned that her parents were business owners.

8. Not interested in sharing • PARTICIPANT 9 displayed no real interest in having a conversation about financial management and mentioned that education debt was not a popular topic worthy of conversation.
Appendix C:

Student Interviews and Interceptions

**FIG. 4.9: PARTICIPANT 10:**

The following interception occurred simultaneously with participant 9. Both participants agreed to share their financial experiences while they ate lunch. The interview occurred in an open campus environment.

*Participant 10 was a Freshman student during the time of the interview.*

**EXCERPTS FROM INTERVIEW:**

1. **Not interested in sharing** • *PARTICIPANT 10* displayed no real interest in a conversation on the topic of financial management or education debt.

2. **Took salary into account** • *PARTICIPANT 10* considered the starting salary of her prospective career before settling on a major. That information came by way of the internet.

3. **PARTICIPANT 10** was not employed while enrolled as a full-time student.

4. **Focused long-term** • *PARTICIPANT 10*, a freshman, had a six-year plan for her education that included going to graduate school. She also mentioned how she choose her school for its location in relation to her family.

5. **Parents played a leading role in her financial management** • *PARTICIPANT 10* allowed her parents to handle the management portion of her Financial Aid. “My parents help me with my loans. I’ll worry about them after I’ve graduated.”

6. **PARTICIPANT 10** admitted to feeling anxious about money. “I have no money, I have no job. I have to rely on someone else and that isn’t the best feeling.”

7. **PARTICIPANT 10** recalled her friends having conversations in regard to education debt and Financial Aid, during her senior year of high school.

8. **Trusted in the value of her education** • *PARTICIPANT 10* believed beyond a doubt, that there would be plenty of job opportunities for her to choose from after graduation.
Appendix C:

Student Interviews and Interceptions

**FIG. 4.10: SUMMARY OF RESULTS:**

The findings listed on this page are the result of emerging trends and insights that appeared over the course of various interviews and interceptions.

These trends are used to guide the next phase of the design and research process.

**OVERLAPPING TRENDS AND EMERGING INSIGHTS:**

1. Students largely maintained their position on the value of education and were willing to chance financial ruin in order obtain their degree.

2. The majority of students interviewed exhibited signs of stress or anxiety while discussing their financial matters.

3. In ninety percent of the cases where budgets existed and were being used, they had been introduced by parents and not created by the students themselves.

4. Students who’s parents owned businesses were more likely to have a long-term perspective on their own personal finance. This is due in part to an increased number of socialization experiences and encounters.

5. Education debt was typically perceived as a liability over an asset.

6. Education debt and repayment were often categorized as part of post graduation responsibilities.

7. The cost of education is largely out of reach for the majority of students who must find part-time employment to supplement their expenses.

8. Ninety percent of those interviewed held at least part-time employment while being enrolled full-time.

9. A lack of financial experience equates to a lack of financial understanding.

10. Only twenty percent of students reported considering their prospective starting salary before selecting a major.

11. Ninety percent of the students interviewed were unable to report what type of loans they had or their total debt. In contrast, those that held scholarships were at least able to describe the amount of money they were receiving each academic year.
Appendix C:

Student Interviews and Interceptions

**FIG. 4.10: SUMMARY OF RESULTS: OVERLAPPING TRENDS AND EMERGING INSIGHTS:**

12. The concept of obtaining higher education through borrowing has become a societal norm.

13. Comfort and familiarity factored critically into a student search for financial support. Students relied heavily on the support of their parents in the process of financial management.

14. Resources borrowed for education were intangible and out of reach, making the realization of their impact difficult to grasp.

15. Financial conversations and financial management on the students behalf is largely reactionary.
Appendix D:

Mechanical Turk Illustrations
APPENDIX D: FIGURE 6. MECHANICAL TURK ILLUSTRATIONS

FIG. 6.1: A person with their empty pockets in full view while someone on the telephone speaks loudly about money. Impression: Negative.

FIG. 6.2: A Lucifer like creature. Impression: Negative.
APPENDIX D: FIGURE 6. MECHANICAL TURK ILLUSTRATIONS

**FIG. 6.3:** A person running from a lion while being chased. Impression: Negative.

**FIG. 6.4:** A female figure being weighed down by a large bag of "DEBT." Impression: Negative.
APPENDIX D: FIGURE 6. MECHANICAL TURK ILLUSTRATIONS

**Fig. 6.5:** A person being crushed by a oversized credit card. Impression: Negative.

**Fig. 6.6:** A person holding a large boulder of "Debt" while standing on a cliff. Impression: Negative.
APPENDIX D: FIGURE 6. MECHANICAL TURK ILLUSTRATIONS

FIG. 6.7: Attention being brought to a figure through a series of lines. Impression: Negative.

FIG. 6.8: A screw being turned in a piece of wood. Impression: Negative.
APPENDIX D: FIGURE 6. MECHANICAL TURK ILLUSTRATIONS

**FIG. 6.9:** “I owe you.” Impression: Negative.

**FIG. 6.10:** A figure lying on a bed of spikes. Impression: Negative.
APPENDIX D: FIGURE 6. MECHANICAL TURK ILLUSTRATIONS

FIG. 6.11: A river scene with a palm tree, mountains, boat, and dwelling. Impression: Uninterpretable.

Appendix E:

Financial Aid Reference Materials
**APPENDIX E: FIGURE 7. FINANCIAL AID REFERENCE MATERIALS**

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**FIG. 7. FINANCIAL AID REFERENCE SHEET.** The following reference sheet was corrected after an advisor attempted to visit the web address during a student meeting. The pin hole marks in its corners suggest that it was at one point copied from another version that was hung up.

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**FIG. 7.1: FINANCIAL AID REFERENCE SHEET.** The following reference sheet was handed out during a student’s meeting with an advisor. The questions asked in fig. 6 were the same as fig 6.1, yet the solutions were inconsistent.
APPENDIX E: FIGURE 7. FINANCIAL AID REFERENCE MATERIALS

FIG. 7.2: EXIT COUNSELING REFERENCE SHEET (FRONT): This sheet was passed out to students at a graduation fair as a guide to exit counseling. It asks the question, “did I use loans?” The sheet also shows the homepages of two websites, http://www.studentloans.gov and http://www.nslds.ed.gov/nslds_SA/

FIG. 7.3: EXIT COUNSELING REFERENCE SHEET (BACK): The reverse side displays an example of a loan history and how to locate your Guaranty Agency. The top right-hand box reads “You will want to go through yours and check everything so you will have a better understanding of what you borrowed and from whom you borrowed money.” Both of the images used in this document are screen captures.
Appendix F:

Lending and Support Materials
APPENDIX F: FIGURE 8. LENDING AND SUPPORT MATERIALS

**FIG. 8. KENT STATE UNIVERSITY, DISCOVER FINANCIAL AID, TRI-FOLD (FRONT):** This piece is published and supported by university brand standards and endorsed with the university logo. Key Messaging: How to proceed with obtaining Financial Aid and the actual costs of college. Value: Consistently ranked in the top two of ten, during the card sorting exercise.

**FIG. 8.1. KENT STATE UNIVERSITY, DISCOVER FINANCIAL AID, TRI-FOLD (INTERIOR):** The interior contains a student Financial Aid checklist and displays the actual sticker price for the institution. It also provides a bulleted list of payment options for students and a FAFSA worksheet (not pictured). Intended Audience: Parents and families with students going to college and students looking to obtain Federal Funding to attend college.
APPENDIX F: FIGURE 8. LENDING AND SUPPORT MATERIALS

FIG. 8.2: KENT STATE UNIVERSITY, DISCOVER FINANCIAL AID, TRI-FOLD (BACK). The reverse side of the document offers information on using the FAFSA4caster, a Financial Aid estimator. It also provides phone numbers and other contact information for all of the regional campuses. Source: Public, Kent State University.

FIG. 8.3: KENT STATE UNIVERSITY, A FINANCIAL AID GUIDE FOR PARENTS AND FAMILIES, BOOKLET (COVER). This piece is published and supported by university brand standards and endorsed with the university logo. The cover depicts a young family. Key Messaging: Becoming well informed in regard to Financial Aid. Value: Consistently ranked in the top two of ten, during the card sorting exercise.
APPENDIX F: FIGURE 8. LENDING AND SUPPORT MATERIALS

FIG 8.4: KENT STATE UNIVERSITY, A FINANCIAL AID GUIDE FOR PARENTS AND FAMILIES, BOOKLET (INTERIOR): The interior lists six steps for consideration in the process of obtaining Financial Aid. The booklet also outlines how to search for scholarships, obtain grants and other payment options. Intended Audience: Parents and families with students going to college.

FIG 8.5: KENT STATE UNIVERSITY, A FINANCIAL AID GUIDE FOR PARENTS AND FAMILIES, BOOKLET (INTERIOR): The last spread of the booklet covers IRA retirement withdraws for educational purposes and a Financial Aid time line. Stock imagery and printed dates shorten the piece’s period of relevance and lessen its utility. Source: Public, Kent State University.
APPENDIX F: FIGURE 8. LENDING AND SUPPORT MATERIALS

FIG. 8.6: PNC BANK, ONLINE FINANCIAL LITERACY EDUCATION, TRI-FOLD (COVER). The right-hand panel depicts a young female student working in a lecture hall. The rest of the brochure displays various stock images of a stereotypical college experience. Key Messaging: Smart planning and spending, helping students make more educated financial decisions. Value: Offers information beyond borrowing. Its tri-fold format makes it easily overlooked as a resource.

FIG. 8.7: PNC BANK, ONLINE FINANCIAL LITERACY EDUCATION, TRI-FOLD (INTERIOR). The left-hand panel reads, “PNC Education Lending’s financial wellness web site, offers an educational experience well beyond the brochures, lectures, and text-heavy web pages typically used for financial education.” The interior depicts images of the financial literacy web site itself. Intended Audience: Students looking to gain a better understanding of their personal financial situation. Source: Private, PNC Bank.
APPENDIX F: FIGURE 8. LENDING AND SUPPORT MATERIALS

**FIG. 8.8: FEDERAL STUDENT AID, COLLEGE GOV, BOOKMARK (FRONT)**: The front side displays the tag line of http://www.college.gov, “I’m going.” And also suggests that the site might have answers to questions for prospective students.

**FIG. 8.9: FEDERAL STUDENT AID, BOOKMARK (REVERSE)**: The reverse side provides a quick fact on the total amount of money Federal Student Aid has available to help students. Key Messaging: Federal Student Aid has money to help students pay for college. Value: Endorsed with the seal of the Department of Education. Intended Audience: Anyone looking for Federal Aid to attend college. Source: Public, The Department of Education.
The ABC's of Financial Aid

We recognize how important it is to find the right loan at the right time for your education. That's why Fifth Third has developed a simple formula to make finding loan for education easier.

1. **GRANT VS. LOAN**
   - Grants are free money, not repaid.
   - Loans require repayment.

2. **FREE MONEY**
   - Fill out the Free Application for Federal Student Aid (FAFSA) to access need-based grants, other Federal aid, and scholarships.

3. **TAKE ADVANTAGE OF FEDERAL FUNDS**
   - Federal Loans are usually available regardless of need.
   - Offer low interest rates and flexible repayment options.

4. **UNDERSTAND ANY GAP**
   - Private Student Loans
     - One of the most popular private loan options is the SmartOption Student Loan.

   - Consider filling any gaps with a private student loan.

   - Use the ABC's of Financial Aid, always use free money, be sure to explore Federal Loans, and consider filling any gaps with private student loans.

This messaging suggests the use of private lending only after the various options for Federal Aid have been exhausted. Key Messaging: "Opportunity starts here." The interior highlights all of the positive points of using this specific loan provider.

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**Fifth Third Bank, Smart Option Student Loan, Tri-fold (Interior):** The minimal quality of the interior and its simple typographic layout allow the reader to quickly digest the salient details of the content. Value: Varies little from other private lending materials. Intended Audience: Students looking to supplement their Federal Aid. Minorities. Source: Private, Fifth Third Bank, Sallie Mae.
APPENDIX F: FIGURE 8. LENDING AND SUPPORT MATERIALS

FIG. 8.12: CHASE, CHASE SELECT PRIVATE STUDENT LOAN, TRI-FOLD (COVER): The left-hand panel reads, “Chase recommends you exhaust all of your Federal Aid options first.” This messaging supports the exploration of resources before making the decision to use private lending. The right-hand panel focuses in on a young female student working in an open area. Key Messaging: “Invest in yourself.” This piece leverages the concept of being “school-certified” as a selling feature.

APPENDIX F: FIGURE 8. LENDING AND SUPPORT MATERIALS

**FIG. 8.14: PNC BANK, SOLUTION LOAN FOR UNDERGRADUATES, QUAD-FOLD (COVER)**: The left-hand panel provides an example chart of repayment options for students using this specific loan program. The right-hand panel depicts an African-American male reviewing grades. Key Messaging: Private loans can help you obtain an education or cover unanticipated expenses. Value: Varies little from other private lending materials.

**FIG. 8.15: PNC BANK, SOLUTION LOAN FOR UNDERGRADUATES, TRI-FOLD (INTERIOR)**: The interior reviews the program’s features and its options for repayment. It also makes mention of program enrollment only after student’s Federal Loan options have been exhausted. Intended Audience: Students looking to pay for their education. Minorities. Source: Private, PNC Bank.
APPENDIX F: FIGURE 8. LENDING AND SUPPORT MATERIALS

FIG. 8.16: DISCOVER, STUDENT LOANS, TRI-FOLD (COVER). The left-hand panel provides worksheet to help students determine their level of need and the cost of attending college. The right-hand panel depicts a young female student. Key Messaging: “Borrow Responsibly.” How to obtain loans through this specific provider. Value: Varies little from other private lending materials.

FIG. 8.17: DISCOVER, STUDENT LOANS, TRI-FOLD (INTERIOR). The interior suggests program enrollment only after student’s Federal Loan options have been exhausted. It also reviews program features and options for repayment. Intended Audience: Those who are overwhelmed with the costs of college and are looking for other potential sources of borrowing. Minorities. Source: Private, Discover Bank.
**APPENDIX F: FIGURE 8. LENDING AND SUPPORT MATERIALS**

**FIG. 8.18: COLLEGIATE CUSTOM CHOICE LOAN, CARD (FRONT).** The front side displays no images of students or parents, only direct information on obtaining the loan and the expediency in which it can occur. Key Messaging: Private loans with personalized options. Intended Audience: Students looking for and expedient loan application process with personalized lending options.

**FIG. 8.19: COLLEGIATE CUSTOM CHOICE LOAN, CARD (REVERSE).** The reverse side depicts an image of web application itself and offers the message to "Apply Today." Value: Varies little from other private lending materials. Excludes the use of imagery. Source: Private, Sun Trust Bank.
APPENDIX F: FIGURE 8. LENDING AND SUPPORT MATERIALS

FIG. 8.20: CHASE, BENEFITS OF A COSIGNER, CARD (FRONT): The front side depicts a group of young female students. Key Messaging: How a cosigner improves your chances of being approved for a private loan and the benefits associated. Intended Audience: Those interested in bettering their odds of being approved for a private loan. The cover depicts seven individuals, six of them are women. Minorities. Source: Private, Chase Bank.

FIG. 8.21: CHASE, BENEFITS OF A COSIGNER, CARD (REVERSE): Value: Varies little from other private lending materials. Its narrow messaging lessens its utility.
References


Creating User-Centered Experiences, Version 6.0., Chicago, Conifer Research


