BUILDING A NON-PROFIT ORGANIZATION'S EVIDENCE-BASED RATIONALE:

A CASE STUDY OF THE POSSIBLE PROJECT

A thesis submitted by

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ABSTRACT

This thesis exemplifies one step in the iterative process of program evaluation that all non-profit organizations should undertake – developing an evidence-based rationale. A relatively new youth serving non-profit organization, The Possible Project (launched in 2011), served as the case study for this project. Through a participatory evaluation involving two measures, the staff of The Possible Project identified the core program component to be studied. Staff chose Pathways Advising, which is a critical program element whereby students receive educational and career counseling. A four-part literature review supports The Possible Project's decision to integrate this component into its program model. Recommendations for how to strengthen the Pathways Advising model are included. In addition, suggestions are offered on how other non-profit organizations can replicate this process.

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Chapter I: INTRODUCTION

My thesis represents a model for undertaking a utilization-focused evaluation for the non-profit organization where I am employed, The Possible Project (TPP). The objectives of this current effort are to identify the core program component that the staff is most interested in validating with empirical evidence, to make recommendations based on the research findings, and discuss how other organizations can replicate this validation process.

TPP is a Cambridge-based afterschool program that utilizes the vehicle of entrepreneurship to help teens to achieve "enduring personal and professional success" (The Possible Project, 2011). TPP is a new program, first piloted in March of 2011. As such a young organization, TPP is ripe for a utilization-focused evaluation to help refine its still evolving model. Utilization-focused evaluation is "done for and with specific intended primary users for specific, intended uses" (Patton, 2008, p. 37). Here, the intended primary users are The Possible Project's staff members (the "TPP Team"). The intended use of the evaluation is to begin building TPP's evidence-based rationale, tackling one program component at a time, reflecting on the new information, and revising components as appropriate.

My thesis exemplifies one step in the iterative process of program evaluation that all non-profit organizations should undertake – developing an evidence-based rationale. While many non-profits must validate their program design prior to receiving funding, TPP came to be in the reverse order: The program was envisioned and launched with the full financial support of a family foundation, and now TPP must embark on the process of validating its design.

Like with any non-profit organization, an evidence-based rationale is crucial to the future success of TPP. In the short-term, this will allow TPP to seek additional sources of funding, as grant applications and savvy philanthropists almost always request this kind of program justification. In the long-term, a sound rationale will ensure that TPP's beneficiaries, youth with barriers to success, are effectively served. In addition, conducting an evaluation so early in TPP's evolution will help to cultivate an organizational culture that embraces evaluation and evidence-based practices.

TPP is a multi-faceted program with five core components:

1) Business curriculum;

2) Work experience;

3) Guidance counseling;

4) Exposure to business-sector role models and advisors; and

5) Incentives.

Rather than skimming the surface of evidence to support each component, my thesis "goes deep" – seeking the evidence base, or lack thereof, of just *one* of TPP's five core components. In the spirit of a participatory evaluation, the TPP Team chose the program component that became the focus of my thesis. As described in Chapter II, staff feedback was elicited through a Semi-Structured Interview and Post-Interview Questionnaire.

This thesis seeks to answer the following research questions:

1. For which component of the program are staff members most interested in exploring the evidentiary base and why?
2. According to the available evidence, what are the best practices for attaining the goals to which this particular component is dedicated? What theoretical and empirical supports exist in the literature?
3. How might the results of this investigation, and the process undertaken, be useful to TPP and other, similar organizations?

In this introductory chapter, I describe the problem that TPP aims to address. I then provide an overview of TPP, including the program's inspiration, mission, goals and objectives, and a description of the five core components. In Chapter II, I describe the methods utilized, which included a participatory evaluation and four-part literature review. In the subsequent chapter, Findings and Discussion, I share the findings of my evaluation and literature review, and analyze the results of each. I conclude with a discussion of my process and recommendations for the TPP Team.

The Problem

Beginning in the 1970s, the U.S. economy experienced a pivotal transition, moving out of the manufacturing era and into a knowledge-based economy (Drucker, 1992). This change has caused huge shifts in the job market, demanding a more educated workforce. Unfortunately, the U.S. education system has not kept up with the realties of the new economy. The school-to-career link is not being taught or emphasized nearly enough. The result is that many American youth lack the skills required to succeed in the highly competitive global job market of the 21st century.

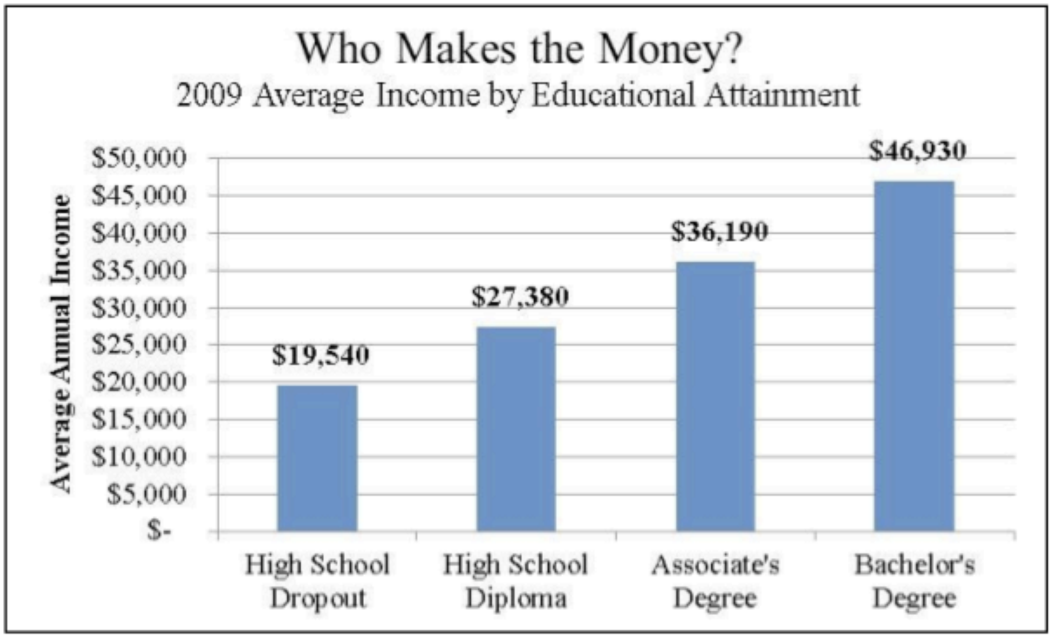
The Need for Higher Education

As described in a 2011 report out of the Harvard Graduate School of Education, job opportunities for those with a high school degree or less are shrinking. In 1973, this demographic made up 72% of the nation's 91 million workers, and thanks to a strong manufacturing economy the majority of them were earning middle-class wages. By 2007, the nation's workforce had ballooned to 154 million people; however, high school graduates now only made up 41% of the workforce. In the past three decades, all of the net job growth has come from positions that require some level of post-secondary education, and this trend shows no signs of slowing (Symonds, Schwartz, & Ferguson, 2011). Not only are job opportunities limited for workers with a high school degree or less, their potential earnings are extremely low.

As displayed in Table 1.1 below, the link between education and earning power is undeniable. In 2009, the average annual income of a college graduate was nearly $20,000 more than that of a high school graduate. Over a lifetime, college graduates earn an estimated $1 million more than do high school graduates (Symonds et al., 2011).

The market is demanding a more educated workforce, but the supply is falling short. Business leaders are concerned that there are not enough qualified workers in fields that require post-secondary education, such as healthcare and information technology. The unspoken threat, of course, is that they will be forced to look abroad to fill these positions. A 2006 survey of hundreds of employers concluded that young workers, particularly those with only a high

Table 1.1: Who Makes the Money?



Source: U.S. Department of Education, 2011 school degree, were deficient in key areas, including oral and written communication, professionalism, and critical thinking (Casner-Lotto & Barrington, 2006). The message is clear – higher education is a must for workers and employers alike.

The Dropout Crisis

Too many youth are failing to complete high school, falling far short of a higher degree. Currently, 1.2 million students (one in three) fail to graduate high school each year, which equates to one dropout every 27 seconds (Alliance for Excellent Education, 2011). For students of color the reality is even starker; while they make up just 39% of the overall student population, they account for 60% of the nation's dropouts, highlighting the glooming achievement gap (Chapman et al., 2011).

Increasing the number of high school graduates is an economic and societal benefit to all. High school graduates are less likely to rely on government housing and welfare programs (Garfinkel, Kelly, & Waldfogel, 2005), and more likely to engage in civic activity such as volunteering (Junn, 2005). Furthermore, the higher earning power of high school graduates equates to more economic activity and increased tax revenue for local and state governments. Lastly, as highlighted above, our economy is suffering from a shortage of educated workers, and a high school degree lays the foundation for post-secondary education.

A fairly recent study (Bridgeland et al., 2006) illuminates the issues faced by dropouts and presents potential solutions. In an effort to better understand the students' perspective, researchers surveyed hundreds of high school dropouts across the country. Out of the nearly 500 surveyed dropouts, the number one most frequently cited reason for dropping out was boredom (ibid.). Furthermore, seven out of ten respondents said they were uninspired to learn (ibid.). These results indicate a failure on the part of the education system to effectively engage students.

Participants in the study offered a solution to counter the tired, uninspired high school curricula usually offered – experiential learning. In fact, 81% of respondents said that efforts to make high school more relevant – including opportunities for real-world learning through internships, service learning projects, etc. – would have encouraged them to stay in school (Bridgeland et al., 2006). Similar studies indicate that if students better understood the link between school and getting a job they would have a better chance of graduating (Barton, 2005). This indicates that school-to-career counseling and programming could substantially lower the dropout rate.

School-to-Career

Across the country, schools are deficient in school-to-career resources. On average, there is one guidance counselor for every 471 public school students (American School Counselor Association, 2011). Rather than receiving individual advice, students are limited to “one size fits all” guidance. Additionally, there are very few vocational learning opportunities for high school students. In the most recent survey of U.S. high schools, only 4.6% classified themselves as vocational schools (Hudson & Shafer, 2002).

Many European countries have found success in vocational education (VET), whereby high school students are engaged in classroom and work-based learning. There are various VET models in use; among the best are those in Germany, the Netherlands, Switzerland, and Finland (Symonds et al, 2011). It is worth noting that these same countries rank significantly higher than the United States in results from the 2010 PISA (Programme for International Student Assessment) exam of 15-year-olds, in both math and science (Organisation for Economic Co-Operation and Development, 2010a). Moreover, research suggests that graduates of strong VET schools have an easier time finding work than those who attended traditional high schools (Symonds et al, 2011).

A 2010 study completed by the OECD (Organisation for Economic Co-Operation and Development) makes several policy recommendations regarding the VET model. The comprehensive report, "Learning for Jobs and Policy Messages," drew on evidence from all 34 OECD countries, self-assessments by VET programs (including the U.S.), and academic literature. The report states that VET programs can play an important role in preparing young people for work, and responding to labor-market needs (Organisation for Economic Co-Operation and Development, 2010b). However, VET programs must balance the occupational-specific skills that are taught with training on transferable, soft skills. Education that includes these soft skills, often referred to as 21^{st} century skills, is essential in today's constantly changing economy where workers are regularly forced to reinvent themselves in a new career.

Overview of TPP

The Possible Project (TPP) was born out of an idea that came to our co-founder, Mark Levin, more than 30 years ago. Mark, much like his wife and co-founder Becky Levin, is a lifelong entrepreneur who has helped launch several companies, including the Cambridge-based firm Millennium Pharmaceuticals. Before finding success in the biotechnology industry, Mark and Becky were living in San Francisco's notorious Haight Ashbury neighborhood ("The Haight"). Each day in The Haight Mark was faced with throngs of young people who were living on the streets, seemingly without direction and purpose. This scene offered such a stark contrast to the hustle and bustle of the shop owners who peppered the streets of this vibrant neighborhood.

Like any good entrepreneur, Mark saw an opportunity in this startling juxtaposition of at-risk youth and pillars of the local economy. At that moment, a seed was planted: When he had the resources, Mark would create a program to bring teenagers and entrepreneurs together. He saw the potential benefits, both economic and experiential, for each population to truly be limitless. It is this vision, formed more than three decades ago, which inspires TPP's current framework.

Mission, Goals, and Objectives

TPP is an out-of-school time (OST) program designed to help prepare youth for the school-to-career transition. The entrepreneurship-focused programming is designed to equip youth with the hard and soft skills required for the working world, while at the same time expanding their knowledge and understanding of career options. TPP adopted this mission statement in late 2011:

> The Possible Project utilizes entrepreneurship to inspire young people who have untapped potential, empowering them with the skills required to achieve enduring personal and professional success. We guide our students through a novel dynamic curriculum, hands-on work experience, and assistance with entrepreneurial endeavors and career goals. We strive to have all our students use their skills to move through a high-level career path and improve their communities while remaining committed to the principle that ANYTHING IS POSSIBLE! (The Possible Project, 2011)

TPP's three short-term program goals, and accompanying objectives, are listed and briefly described below.[1]

- Goal # 1: Increase students' hard and soft professional knowledge/skills
    - Objective # 1: To increase students' knowledge of business-related topics
    - Objective # 2: To enhance students' 21st century skills

These hard and soft skills empower students to confidently develop, launch, and operate their own ventures. In terms of hard knowledge, students are first taught foundational business topics, and more advanced topics as they progress through the program. TPP seeks to impart nine 21st century skills, selected from among those included in The Partnership for 21st Century Skills' framework (2009): Flexibility and adaptability; Initiative and self-direction; Social and cross-cultural skills; Productivity and accountability; Leadership and responsibility; Creativity and innovation; Critical thinking and problem solving; Communication and collaboration; and Financial, economic, business, and entrepreneurial literacy. TPP believes that fostering these soft skills will positively impact students' life outcomes.

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[1] TPP is still working on its Logic Model, thus the goals and objectives are subject to change.

- Goal # 2: Increase students' work readiness skills
  - Objective # 1: Improve students' ability to collaborate with others
  - Objective # 2: Increase students' knowledge of and exposure to the elements required for running a successful business
  - Objective # 3: Increase students' comfort level in a real work environment

In meeting the above-listed objectives, TPP helps ready students for the working world. The ability to effectively collaborate is an essential skill that is likely helpful in every career. There are certain elements that are universal to every type of business, hence TPP's focus on exposing students to these core components. While every industry and organization has its own unique workplace culture and environment, TPP feels it is important that students gain familiarity and comfort in at least one professional setting. For this reason, TPP's office space is more reminiscent of a high-tech start-up company than a youth center.

- Goal # 3: Increase students' awareness and understanding of potential post high school pathways
  - Objective # 1: Increase students' knowledge of career options, and the post-secondary education/training required for those careers
  - Objective # 2: Increase students' individualized career and education counseling

This third and final goal is arguably TPP's most important. As described previously, education beyond high school is critical. TPP wants to ensure its students know and understand the wide range of options available to them. Therefore, the organization has included individualized education and career counseling in its program model.

Intervention Theory

The Possible Project has not yet finalized its intervention theory. Currently, TPP is operating on the basis of several hypotheses, which are articulated in a continuously revised logic model. In the most updated version of TPP's logic model (Appendix A) there are three long-term outcomes, which students are expected to achieve five to ten years after graduating from the program. These long-term outcomes are listed below.

1. Complete post-secondary education/training - TPP encourages the following post-secondary education/training options: Bachelors Degree; Associates Degree; or a High-skill professional certification.
2. Be gainfully employed – Defined as the ability to repay student loans without causing financial hardship, i.e. loans do not exceed 30% of discretionary income or does not exceed 12% of annual earnings (U.S. Department of Education, 2011).
3. Achieved self-sufficiency, e.g. not reliant on welfare income.

Program Philosophy

While the intervention theory itself is not fully formed, the program philosophy underpinning it is quite solid. The program philosophy has four parts: experiential learning; high touch; high standards, high results; and "it takes a village." TPP is dedicated to *experiential*, non-traditional education. TPP's entrepreneurship curriculum is not theoretical, by which I mean abstract and imaginary. Instead the curriculum is concrete, practical and activity-based. Students are given the opportunity to "learn by doing" – applying the lessons they learn to their own ventures and/or to TPP's in-house businesses. Given that many of TPP's students (described below in "Target Population") are somewhat disengaged from school, every effort is made to provide students with a learning experience that is quite different from the traditional setting. Rather than rows of desks, TPP students "circle up" with peers and teachers to encourage open, free flowing discussion.

When it comes to serving students, TPP has chosen depth over breadth. TPP is a *high touch*, multi-year program. The learning experience is enhanced with a small student to teacher ratio of 8:1, allowing for each participant to receive individualized guidance. Plus, the program is designed to serve youth for three full years (sophomore to senior year in high school), which provides youth with a stable source of long-term support while they mature, grow, and explore their future opportunities.

TPP also believes that *high standards yield high results*. TPP holds all students to high standards. Every participating student is required to sign and abide by TPP's Productivity Contract, which provides clear expectations around participation and behavior. Students are expected to arrive on time, actively participate in the session, and to behave in a respectful and professional manner toward peers, staff, and the space. Failure to abide by the terms of the Productivity Contract (tracked through a point system) can result in dismissal from the program. TPP believes that setting a high bar for all will elicit the best results.

The old adage "*it takes a village to raise a child*" is something that TPP takes to heart, and holds that the most effective way to truly affect young people's futures is to create an integrated network of supports in their lives. Fortunately, the City of Cambridge has a wealth of resources from both the private and public sectors. TPP actively seeks collaborations within the community in the arenas of entrepreneurship, education, and youth development, leveraging these relationships to benefit students.

TPP's Framework

TPP operates within a positive youth development framework. Positive youth development (PYD) is an asset- or strength-based perspective of adolescence (Delgado, 2004). This approach "emphasizes the manifest potentialities, rather than the supposed incapacities, of young people" (Hamilton & Hamilton, 2004, p. 17). PYD is rooted in the "theory of plasticity," explaining that "adolescents' trajectories are not fixed and can be significantly influenced by factors in their homes, school, and communities" (Lerner, Lerner, & Phelps, 2009, p. 10).

There are three primary activities utilized by PYD programs: 1) positive and sustained relationships between youth and adults; 2) activities that build important life skills; and 3) opportunities for children to use these life skills as both participants and as leaders (Lerner, Almerigi, Theokas, & Lerner, 2005). All three of these primary PYD activities can be found in one or more of TPP's five program components, which are detailed out in a later section.

TPP is distinctive in that it straddles two arenas: youth development and employment. The program is not advertised as a job, but it is made clear to students that they are in a business education and training program. Students are required to sign and abide by TPP's Productivity Contract, which provides clear expectations around participation. Students are expected to arrive on time and to provide ample notice to program staff should they be delayed or absent. Students who remain in good standing[2] receive biweekly payments of up to $40. Hence, the payments students receive are put into the context of career development.

Another important distinction is that TPP operates during out-of-school hours, and is currently funded entirely by private dollars. In this way TPP is free from the oversight and often-strict regulation of government programs or school administration; however, this does not mean that TPP has ignored the school system. To the contrary, TPP has made a concerted effort to partner with local schools.

To this end, students must be nominated by a faculty or staff member at their school in order to be considered for admittance to TPP. Nomination forms are distributed at the high schools, outlining the type of students, with untapped potential, that TPP is seeking to serve. More than 75% of TPP's students must meet at least one of the following criteria that represent barriers to achievement:

- Low socioeconomic status (Bozick & Lauff, 2007);

[2] "Good standing" is measured via a point system that is described in the Productivity Contract.

- Recent immigrant/ English language learner (Laird, Kienzl, DeBell, & Chapman, 2007); and/or
- Recipient of an Individual Education Plan (National High School Center, 2007).

TPP carefully selected the term "untapped potential" to replace the oft-used term "at-risk." The chosen label is more in line with the PYD framework, which views youth as an asset, rather than a deficit. TPP believes that all youth have the potential for great things, but often are not given the appropriate opportunity to tap into this potential. The hope is that TPP's programming can serve as the trigger for success for many of these youth.

Unlike many like-minded programs, TPP's core curriculum is taught entirely by paid staff members, as opposed to volunteers or school-employed teachers. This provides TPP with a great degree of quality control over lessons. As described in a later section, volunteers are still utilized, but not to facilitate core business lessons.

Program Components

TPP is in an early evolutionary stage. Given this, the program offerings and structure will most likely be modified over the next couple of years. In its current form, TPP's program consists of five core components: 1) business curriculum; 2) work experience; 3) guidance counseling; 4) exposure to business sector role models and advisors; and 5) incentives.

The foundation of TPP's programming lies within the first program element. TPP's Entrepreneurship Education Team developed the *business* *curriculum*. Students are taught in a collaborative, interactive learning environment that exposes them to essential business concepts, from branding and marketing to supply and demand. The rationale for the business curriculum is that few, if any, of the participating teens have been exposed to business concepts. TPP feels it is essential to provide students with a foundational understanding of business before they enter the working world.

Students gain *work experience* through operating their own ventures, or working for one of TPP's in-house businesses. TPP has developed two in-house businesses, both of which are still in their infancy. The first is a digital imaging business, Cambridge Made Possible, which creates, manufactures, and sells products featuring images photographed by the students. The second business is an online resale business, We Sell Possible. In this business, TPP students research, list, sell, and ship items that have been donated to TPP. The primary purpose of each business is to orient students to the working world. The secondary objective is for these businesses to serve as profit-generating arms of the organization, with all proceeds going directly back into TPP programming.

The third program component, *guidance counseling*, is a pivotal program offering, and will be launched in the fall of 2013. TPP plans to hire an additional staff member in 2013 who will serve as the "Pathways"[3] Advisor. As currently envisioned, the Pathways Advisor will meet with students in one-on-one session and groups workshops throughout the course of their three years in the program. Guiding these interactions will be an individualized Pathways Plan, which each

[3] "Pathways" is a term that TPP adopted after reading the 2011 report out of Harvard's Graduate School of Education, *Pathways to Prosperity*. To TPP, "pathways" refers to range of post high school options that can and should be made available to students.

and every student will be required to complete and update twice per year. The Pathways Plan will force students to envision their futures and create a roadmap for getting there. This process should help them make the connection between their education and their future careers.

This program component is pivotal because it is filling a service gap currently plaguing public schools. As cited previously, the national average is one guidance counselor for every 471 public school students. With a Pathways Advisor, TPP hopes to provide the individualized educational and career counseling that many students are not adequately receiving in school.

In a variety of ways, TPP students receive *exposure to and advisement from business professionals in the community.* One way is via Venture Team Advisors, who are local business savvy professionals that volunteer with TPP. Each advisor is matched with one student venture team and meets with them on a monthly basis for up to one year. Venture Team Advisors serve as external sounding boards, holding students accountable to time-bound benchmarks, and providing the personalized support students need to continually improve their businesses.

This professional exposure and mentorship is also present during Student Business Hours. These are essentially drop-in hours that TPP operates on Wednesday and Friday afternoons. Upon arrival, participating students meet with either a staff member or a volunteer from Babson's MBA program to go over an "Action Plan" for the day. Staff and volunteers help students set realistic and time-bound goals for their business activities for the day, whether it is research, business plan writing, or business operations.

Lastly, professional exposure comes through a series of business speakers and field trips. The purpose here is to expose students to as many and varied career paths as possible. By increasing the students' awareness of their possibilities, the hope is that it will also increase their personal and professional ambitions.

The fifth and final program component is *incentives,* which are both participation- and performance-based. For participation, students receive a modest bi-weekly stipend of up to $40 in cash. Periodic Pitch Panels, where students have the opportunity to pitch their business to a panel of local professionals and entrepreneurs, allow students to receive business investments of up to $300. Pitch Panel investment amounts are determined on the venture team's performance and viability of the business. Students are also given performance-based incentives, in the form of movie passes or nominal gift cards to local stores, for winning games that test business knowledge and skills.

Monetary incentives have been a primary hook in recruiting students to TPP. I conducted an evaluation of roughly half of the participating students (10 of 22) in January 2011, and found that 80% of those evaluated identified the biweekly payments of $40 as a major factor in their decision to enter and remain in the program. TPP feels that paying students is especially critical when considering that the majority of the students served come from low-income households. The amount that students are paid, combined with non-cash incentives (the aforementioned gift cards), is more or less equivalent to a minimum wage job, allowing students to dedicate their afterschool hours to the enriching opportunities offered at TPP, rather than to a typical afterschool job.

Chapter II: METHODS

This thesis proceeded with two separate data collection phases, each with its own dataset and methods for analysis. This chapter begins by describing the methods of the participatory evaluation, followed by a description of the methods utilized for the literature review.

Participatory Evaluation

As stated previously, my thesis falls within the framework of a utilization-focused evaluation. Ultimately, I want the TPP Team to *utilize* the results of my thesis. As such, I felt it was important that the staff be invested in my project. With this goal in mind, I developed a way for them to be directly and centrally involved: a participatory evaluation. Through this method, the staff selected one TPP program component to be the focal point of my thesis work, thereby creating a direct staff investment in the process and results of my final work.

The execution of this participatory evaluation organically developed into two distinct sub-components: 1) a Semi-Structured Interview; and 2) a Post-Interview Questionnaire. Each component is described below, including the rationale, data collection, and the data coding and analysis. I conclude with a description of the resources and constraints of the evaluation.

Semi-Structured Interview: Rationale

I chose to execute a Semi-Structured Interview for three critical reasons. First, my insider role at TPP gave me easy access to all of the staff members. While in-person interviews generally take longer to coordinate and conduct, this was not a concern given that I am regularly on-site at TPP and could easily cater to the scheduling needs of my subjects.

Second, the rigidity of a standard interview would not match the degree of comfort and familiarity I have with each interviewee. With such a small staff, I interact and communicate with all of my co-workers on a daily basis, which would make the constraints of a structured-interview feel unnatural. In addition, I wanted staff to have the freedom to discuss aspects of the program that my questions did not specifically address. A *semi-structured* interview is more flexible, which allowed me to capture additional ideas and suggestions from staff.

Last, I wanted an instrument that could be administered in a one-on-one setting with my co-workers. This eliminated the dynamic that often plagues our group meetings where certain staff members dominate the conversation. This format provided the best opportunity for each staff member to respond individually, and without interruption.

Semi-Structured Interview: Data Collection

I developed a seven-page Semi-Structured Interview (Appendix B), designed to elicit specific feedback on individual program components from each staff member. While I wanted to grant staff the opportunity to freely voice their opinions, I had to balance that with my need as an evaluator to effectively code and compare the results. Therefore, the interviews contained a mix of open-ended and close-ended questions.

Evaluation Questions

The Semi-Structured Interview had two areas of interest: 1) Confidence Level; and 2) Research Needs. There were two guiding questions connected to each interest area. The evaluation sought to answer these overarching questions through several related sub questions. The overarching questions, and the categories of information each had to address, are listed below.

Part 1: Confidence Level

- Guiding Question: What degree of confidence do staff members have in each program component?
- Categories of Required Information:
  - Staff opinion on categorization of program components
  - Staff confidence ranking of program components, both design and implementation

Part 2: Research Needs

- Guiding Question: Which program components do staff members feel we should research more?
- Categories of Required Information:
  - Staff opinion on which components require more research
  - Staff priority ranking of components requiring research

The Institutional Review Board (IRB) Process

The Institutional Review Board (IRB) ensures that human subjects are adequately protected. Since my evaluation involved human participants, I had to complete an application for the IRB. I submitted a Protocol Application for

Exempt Status on 4/3/12 (Appendix C). Exempt status is granted to research projects that pose no more than "minimal risk," which is defined by the IRB as the following: "Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during performance of routine psychological examinations or tests" (Department of Health and Human Services, 2009). The questions in my Semi-Structured Interview are not sensitive in nature, thus I felt my evaluation would be deemed "minimal risk" and granted exempt status. The IRB agreed; on 4/6/12 I was approved for Exempt Status (Appendix D). With this critical preliminary step completed, I was now able to proceed with interviewing the TPP Team.

Interview Process

I conducted the interviews in-person and on-site at TPP. I met with each subject in one of the office's private meeting rooms. I interviewed just one staff member at a time in the span of one workday. The length of each interview varied considerably. Three interviews fell within my expected timeframe of 15-20 minutes, while the other two interviews were substantially longer at 39 and 28 minutes, respectively.

The Sample

The subjects for this brief Semi-Structured Interview were current staff members, six in total, excluding me. While all five staff shared full-time employment status, they were rather diverse in all other categories of employment. The length of service among staff members varied significantly from less than two months to two years, and everywhere in between. In addition, the five subjects fell across four different staffing levels: 1) Executive; 2) Director; 3) Manager; and 4) Associate.

Resources and Constraints of the Evaluation

Given that I am a TPP staff member, and the evaluator, this was an internal evaluation. As with any evaluation, those conducted by an insider have their advantages and disadvantages. A clear advantage is that, as a staff member, I had, and continue to have, a solid understanding of the program and organizational culture. This saved TPP the time and energy that would have been spent getting an external evaluator up to speed on programming and staff. In addition, TPP did not incur the costs of hiring an external evaluation team. Lastly, an internal evaluation has the potential to build evaluation capacity within TPP. Whereas an external evaluator is only available for the duration of an evaluation, I will be at TPP indefinitely, and, as needed, can share my resources and knowledge of the evaluation process.

The greatest possible disadvantage to an internal evaluation is the potential loss of objectivity. As a staff member, with strong opinions on the current program model, it was challenging for me to remain objective during the interviews. I had to work hard to maintain a neutral tone as I questioned staff about the five core program components, so as not to let my biases influence their responses. When I analyzed the interview results I had to again take care to remain objective. I methodically tabulated the responses, and let the results speak for themselves.

Likewise, my dual role as a staff member and evaluator was challenging for the interviewees. Accustomed to interacting with me as a colleague, the staff felt somewhat uneasy with me in this unfamiliar position of evaluator. Particularly at the beginning of the interviews, I noticed that some of them were visibly anxious, shifting in their seats and answering my initial questions rather hesitantly. On the other hand, as the interviews progressed I believe that my familiarity made staff more forthcoming in their responses than they would have been with an external evaluator.

It was important that I recognized these challenges up front. I put forth my best effort to remain as objective as possible throughout the process. I asked all questions in an impartial manner, successfully resisted the urge to share my own opinions, and generally maintained a neutral air throughout the interview.

Semi-Structured Interview: Data Coding and Analysis

The five interviews yielded 35 pages of content for analysis. The first step, once data collection was completed, was to code all of the responses. I went through each interview question, noting and numbering the unique answers among the participants. I then summarized and listed out the unique responses to each interview question in a Coding Key (Appendix E). After coding was complete, the results were recorded in a spreadsheet (Appendix F).

Post-Interview Questionnaire: Rationale

The Semi-Structured Interviews did not elicit a clear choice for the subject of my thesis. As such, I was forced to conduct a follow-up evaluation. As opposed to the comprehensive seven-page Semi-Structured Interview, the Post-

Interview Questionnaire was short and simple. It was designed this way on purpose. A substantial amount of time and energy had already gone into the interviews, and I was now anxious to move onto the next step of my thesis. I believed that a brief questionnaire of the same five staff would elicit the desired outcome (to select *one* program component), while also maintaining the integrity of my participatory evaluation process.

Post-Interview Questionnaire: Data Collection

The one-page Post-Interview Questionnaire (Appendix G) began with an introductory paragraph, thanking the staff for their continued participation and providing a status update. It was my intention to set a positive tone, while also being direct and honest that this participatory process was not yet complete.

The questionnaire consisted of only two questions. The first question required staff to rank the culled down list of three program components in order of priority/importance for my proposed work in building TPP's evidence-based rationale. The second question was open-ended, simply asking staff to explain the reasoning behind their top choice.

The Post-Interview Questionnaire was distributed at a TPP Team Meeting on June 19, 2012. Respondents were then given ten minutes to complete the form, though everyone finished in less than five minutes. Upon completion, staff handed their completed questionnaires directly to me for coding and analysis.

Post-Interview Questionnaire: Data Coding and Analysis

Given the simplicity and brevity of the questionnaire, the data coding and analysis was brief and straightforward. For coding purposes, it was only necessary to focus on the rankings in Question One. Based on the rankings provided by the five staff, each component received a cumulative score, whereby a first choice ranking received three points, a second choice received two points, and a third choice received one point. Through this simple coding and arithmetic, the component with the most points was then declared the topic for my thesis.

Literature Review

Through the participatory evaluation the TPP Team determined that I would examine the Pathways component. As envisioned by TPP, Pathways straddles four disciplines – career counseling, schools counseling, college access and success, and noncognitive skills – therefore, I had four areas of literature to review. In this section I explain how I collected the relevant data and organized my findings.

Data Collection

Before diving into this next substantial piece of my thesis, I worked with a Tufts' Research Librarian, as well as my Thesis Advisor, to develop a strategy. It was decided that I would begin by searching within two particular journal databases, Scopus and ERIC (Education Resources Information Center). Scopus includes a collection of over 14,000 scholarly titles, covering the disciplines of social science, psychology, and economics. Meanwhile ERIC, which is sponsored by the U.S. Department of Education, is recognized as an excellent source for education-related literature.

I followed through on these recommendations and began to search through the vast amount of literature, focusing on one category of research at a time. Table 2.1 illustrates the keyword search terms that I utilized.

Table 2.1: Keyword Search Terms

Search Field 1	Search Field 2	Search Field 3
- Career counseling - Vocational counseling - Career guidance - Vocational guidance - School counseling - School guidance - Guidance counseling - College access - College success - Post-secondary education access - Post-secondary education success - Higher education access - Higher education success - Noncognitive skills - Noncognitive traits - Personality traits	- Review - Interventions - Principles - Meta-analysis - Theory - Research - History - Evidence-based practices - Common practices	- Youth - Adolescence - Students

Almost every combination of search terms provided me with hundreds of results, forcing me to further refine my search by subject area (e.g. education), document type (e.g. peer-reviewed article), publication years (e.g. 2007 or later), and/or source type (e.g. journal). Once the results were of a more manageable size I read the abstract for each article. By reading the abstracts I determined which articles were the most relevant, and thus worthy of a full read. At the end of this process, I had amassed and read through well over 100 pieces of literature across the four categories of interest. Afterwards, I culled this selection down to the 50 or so most relevant pieces of research.

Organization of Data

In order to organize the data I created a document that briefly summarized each piece of literature within the four areas of research: career counseling; school counseling; college access and success; and noncognitive skills. From there I was able to identify common themes for each research area, and group the data accordingly. For instance, with college access and success seven categories of data emerged: critical skills; racial and income disparities; college outreach programs; key definitions; components; barriers; and study results. By comparison, for career counseling six categories of data emerged: intervention types; aspirations and expectations; components; theories; study results; and job satisfaction.

These organizational techniques gave me a clear outline for each of the four research areas; however, there was no common structure among them. Through an initial draft it became clear that without a set structure, the four areas of my literature review would be difficult to digest and compare. I, thus, developed a general structure, which captured the critical data in each of the four disciplines, and allowed for a more cohesive literature review. The chosen structure includes four overarching categories of data: history; basic assumptions or orientation; core components/framework; and studies of effectiveness.

Data Analysis

These data categories allowed me to more easily compare, identify common themes, and analyze the results of the literature review. I created a series of tables (included in Chapter 3), where I made the four areas of research – career counseling, school counseling, college access and success, and noncognitive skills – the column headings, and the four above-listed categories of data as the row headings.

Chapter III: FINDINGS and DISCUSSION

This chapter presents the findings separately for each section of the study. It begins with a comprehensive description of the findings from the participatory evaluation, and then concludes with the four-part literature review.

Participatory Evaluation

This chapter delves into the findings of the two-component participatory evaluation. I will begin with the results and analysis of the Semi-Structured Interview, followed by the findings of the Post-Interview Questionnaire. Ultimately, I achieved my objective and a single TPP program component was chosen to be the focus of my thesis research.

Evaluation Results

The interview results (Appendix H) are presented in the following sequence: categorization of program components; confidence level; and research needs. Each section references the key interview questions, followed by a description and comparison of the responses.

<u>Categorization of Program Components</u>

My interview began by asking participants to share their opinion on my categorization of TPP's key components: 1) Business Curriculum; 2) Work Experience; 3) Pathways Advising; 4) Exposure to Business Sector Role Models and Advisors; and 5) Incentives. Interviewees were asked to suggest modifications and/or additions.

I was pleased to discover that each staff member had followed through on the request in my introductory email, where I stated the following: "Prior to the interview, please think about the categorization that I came up for TPP's program. If you think that the core components should be organized in another way, or if you feel I have forgotten any critical components, please be prepared to speak about that in the interview." Indeed, all five staff members had an addition and/or modification to my program categories. It was particularly important to me that interviewees thoughtfully responded to this question, since the entirety of the evaluation is based upon rating individual program components.

Every staff member, less one, commented on my proposed fifth component – "Incentives," voicing their opinion that it was more accurate to label incentives as a method or strategy than a distinct program component. I found myself immediately agreeing with this clarification. I was pleased that my colleagues had caught this oversight on my part; however, I did keep all questions related to incentives in the remainder of the evaluation. Regardless of whether "Incentives" is labeled as a method or a program component, everyone agreed it was a part of the TPP model. Therefore, I felt it was still important to learn how confident staff members were in the current design and implementation of incentives.

There was also quite a bit of discussion about my second proposed program component, "Work experience." Four out of five staff members recommended that this component be modified into two sub-components: a) Student Ventures; and b) In-House Businesses. I felt that this suggestion was quite on point. Upon hearing this idea in the very first interview, I edited every interview thereafter, adding each “Student Ventures” and “In-House Businesses” to the listing.

The final two interviewees suggested one additional program component – “Business Hours,” referring to the informal, open hours that TPP operates two days per week. Business Hours take place outside the bounds of formal programming time. Students are highly encouraged to attend these open hours, but it is not a requirement. During Business Hours, students have the freedom and flexibility to go at their own pace and focus on whatever aspect of their own student ventures they wish, whether it be revising their business plan, holding a meeting, or transacting a sale.

Recently there has been a concerted effort by staff to make Business Hours more structured through the use of “Action Plans” that each student must record and follow; however, at the time of these interviews no such structure existed. In addition, there were no specific program outcomes or measurements associated with Business Hours. Thus, I had not even considered adding Business Hours to my list of core program components.

These two staff members made a sound argument, explaining that students spend up to seven additional hours each week at TPP through Business Hours. They even shared anecdotes of the growth of certain students that they would credit to the independence and initiative fostered through Business Hours. Given that this addition to my list was not voiced until the fourth of five interviews, only the final two interviewees had the opportunity to rate their confidence in this component. Table 3.1 displays the program components that each participant considered, discussed, and rated during the semi-structured interviews.

Confidence Level

To begin this portion of the interviews, I posed two open-ended questions. First, I asked staff, "Which components of our program do you feel the *most* secure about? Why?" I followed up with, "Which components of our program do you feel the *least* secure about? Why?" All of the interviewees had an immediate response to both questions. It was interesting to see that staff members were generally of the same opinion.

The majority of staff (4 out of 5) listed two components in which they felt the "most secure," with one component receiving multiple votes. *Business Curriculum* was the clear winner, with all five staff members listing it as a component in which they felt the "most secure." In terms of components in which staff felt "least secure" there were only two answers provided, with three staff mentioning both. In-House Businesses received 63% (5 out of 8) of the votes and Pathways Advising received 37% (3 out of 8) of the votes.

For the most part, staff members were on the same page regarding the degree of confidence expressed in the design and implementation of individual program components. For these questions, responses were confined to a five-point Likert Scale: 1) Very Insecure; 2) Somewhat Insecure; 3) Neutral; 4) Somewhat Secure; and 5) Very Secure.

Table 3.1: Categorization of TPP's Program Components

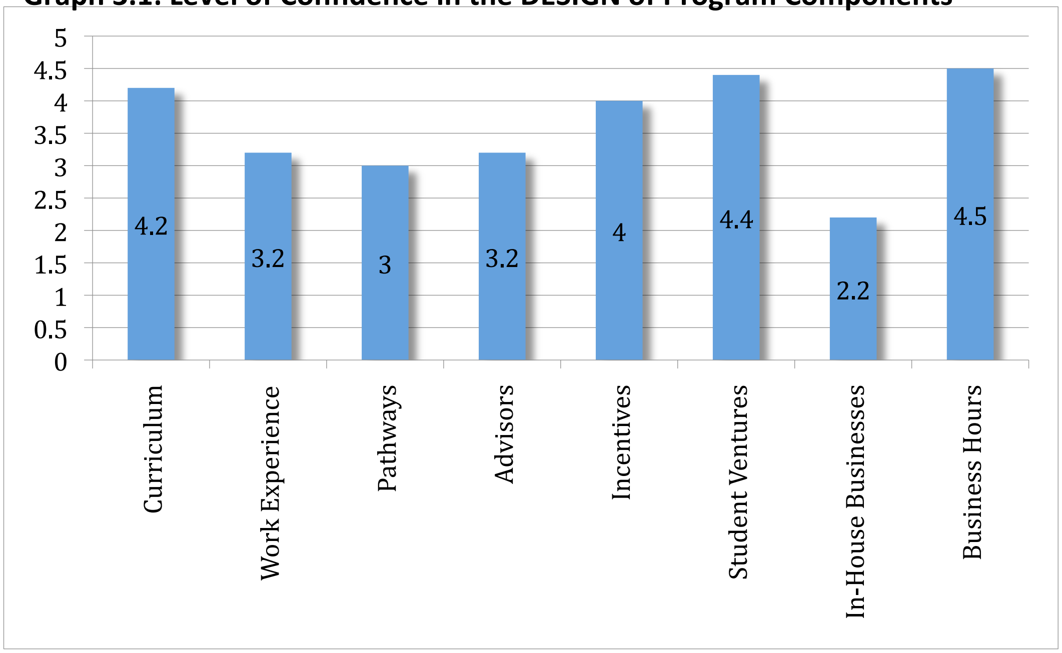
<table>
<tr><th>Proposed List</th><th>Modified List for Interviews 1-3</th><th>Modified List for Interviews 4-5</th></tr>
<tr>
<td>1. Business Curriculum
2. Work Experience
3. Pathways Advising
4. Business Advisors/ Role Models
5. Incentives</td>
<td>1. Business Curriculum
2. Work Experience
a. Student Ventures
b. In-House Businesses
3. Pathways Advising
4. Business Advisors/ Role Models
5. Incentives (*method*)</td>
<td>1. Business Curriculum
2. Work Experience
a. Student Ventures
b. In-House Businesses
3. Pathways Advising
4. Business Advisors/ Role Models
5. Incentives (*method*)
6. Business Hours</td>
</tr>
</table>

The Likert Scale responses mirrored the earlier open-ended responses. (See Graphs 3.1 and 3.2 below.) The Business Curriculum design had a mean response of 4.2, indicating that, for the most part, staff felt "somewhat secure" that the design is helping TPP to achieve its mission. The other top scores in the design category were Student Ventures and Business Hours, averaging between "somewhat secure" and "very secure."

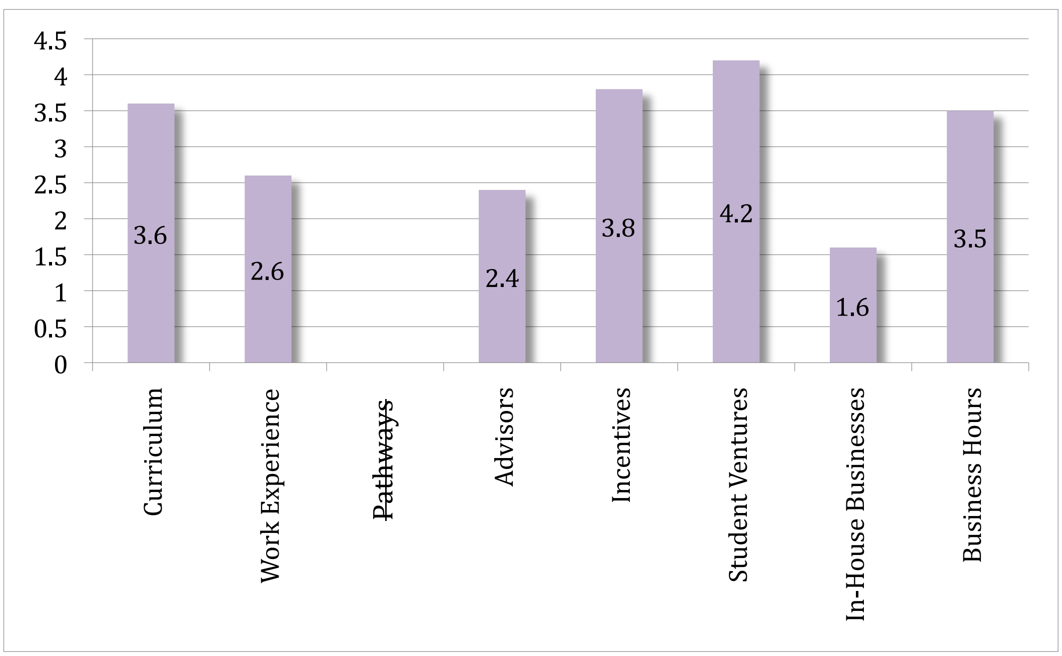
Once again, staff indicated that they felt the least secure regarding Pathways and the In-House Businesses. For design, Pathways received a 3.0 mean rating, indicating a "neutral" degree of security. However, this mean is a bit misleading since no one on staff actually gave a neutral rating. Three staff members gave a "somewhat secure" rating (4.0) to the design of Pathways, while the other two participants responded with a "somewhat insecure" and "very insecure," respectively. The In-House Businesses received the lowest marks, averaging 2.2 or "somewhat insecure." For implementation, In-House Businesses dropped down to a 1.6, by far the lowest degree of confidence expressed by the staff.

Graphs 3.1 and 3.2 display staff members' responses to their confidence in the design and implementation of the various program components. Please note that Pathways Advising is only included in the "Design" table because it has not yet been implemented.

Graph 3.1: Level of Confidence in the DESIGN of Program Components



Graph 3.2: Level of Confidence in the IMPLEMENTATION of Program Components



In comparing these two graphs, it is noteworthy that there appears to be a substantial drop in confidence between the design and implementation of each component. The average level of confidence was higher for each component's design than it was for its implementation. As a non-profit that still considers itself to be in "start-up phase" this result is to be expected. The TPP team often acknowledges that they are still experimenting with the design, and more so the delivery, and these responses reflect that reality. Alternatively, this may indicate that the TPP Team does not feel that each program component has been implemented in the way it was intended. Or, perhaps, the design of the program components does not offer sufficient guidance on how to implement them.

If I had been interviewed, I would have also stated my confidence in the Business Curriculum. Likewise, I would have voiced the least confidence in Pathways Advising and the In-House Businesses. When you consider that organisms or systems (such as TPP) generally prefer homeostasis, these results are not surprising. When these interviews took place, the component that had been utilized the most was the Business Curriculum, having been tested on five different cohorts of students. On the other hand, Pathways Advising is still untested and, at the time of the evaluation, the In-House Businesses were being piloted for the first time. Naturally, staff members felt a greater degree of comfort with the Business Curriculum than they did the other two components.

Research Needs

In the last section of the Semi-Structured Interviews I asked staff members to speak to TPP's research needs. Specifically, I inquired into which program component(s) they believed require more research. I then asked interviewees to prioritize the identified components, based on what they believed were the most pressing needs.

Table 3.2 below reveals which components staff felt required additional research. The most frequently cited program components were Pathways Advising, In-House Businesses, and the Business Curriculum. At first glance I was surprised that three out of the five interviewees mentioned the Business Curriculum since it is the component in which staff expressed the most confidence. However, upon further reflection, I believe this is simply an indication of how important staff members believe this program element to be. While they did express confidence in its current design, they were also acknowledging that there is room for improvement.

In terms of research priorities, there was no clear “winner.” There were four different suggestions for the first priority, with two staff each recommending Pathways Advising. For the second research priority, there were also four suggested program components, with only Incentives receiving more than one vote. Combining the first and second research priorities, Incentives was mentioned the most, with three out of ten votes or 30% of the total.

The results of my analysis were inconclusive. The interviews did not accomplish my desired outcome of singling out one program component to be the focus of my thesis. In retrospect, based on simple math, I should have anticipated as much. There were 7-8 program components from which to choose, and only

Table 3.2: Which Components Require Further Research?

Response	Frequency	Percent
Business Curriculum	3	19%
Student Ventures	1	6%
Pathways Advising	4	25%
Business Advisors	2	12%
Incentives	2	12%
In-house Businesses	3	19%
Business Hours	1	6%
TOTAL	16	100%

five participants doing the choosing. It would have been more of a surprise if the results *were* conclusive.

Fortunately, the interviews did at least narrow the field of program components. There were three components that received greater attention than the others: In-House Businesses, Pathways Advising, and Incentives. In Part I of the Interview, "Confidence Level", the In-House Businesses emerged as the program element for which staff felt the least confident, both in terms of design and implementation. In Part II of the Interview, "Research Needs," both Pathways Advising and Incentives were cited the most by participants as requiring additional research. With these preliminary results in hand, I then administered the Post-Interview Questionnaire.

Questionnaire Results

With the Post-Interview Questionnaire, the results were quite clear. Four out of the five staff members ranked Pathways Advising as their number one choice for my thesis. The other staff member ranked In-House Businesses first, followed by Pathways.

While staff members were mostly aligned in this choice, their reasoning behind selecting Pathways differed quite a bit. One staff member made the choice based on the fact that TPP plans to hire a Pathways Advisor in the immediate future, expressing hope that my thesis research could inform the hiring criteria. Another staff member pointed out that Pathways is most closely connected to TPP's long-term outcomes, and, thus, arguably the most critical component. One respondent had a more utilitarian reason, stating that there would likely be more research regarding Pathways than the other two components. The final staff member who ranked Pathways first expressed a strong belief that TPP's mission is misaligned with its current staffing capacity. This staff member felt that researching Pathways could help improve this alleged disconnect.

Despite the different reasoning behind the Pathways choice, I was pleased that a selection had been made. I now had a clear direction for my thesis and could begin conducting research. The next section includes the results of my literature review.

Literature Review: Findings

This literature review addresses, in turn, four distinct areas of The Possible Project's proposed Pathways Advising component: career counseling; school counseling; college access and success; and noncognitive skills. Each of the four areas follows the same general structure: history; basic assumptions or orientation; core components/framework; and studies of effectiveness. Given that the literature in these areas is vast and beyond the capacity of this thesis to fully explore, I have focused on the aspects that particularly relate to TPP's programming.

The purpose of this review is to determine the extent to which the literature confirms TPP's approach or has recommendations for how to alter the proposed Pathways framework. As such, this literature review is a large part of my analysis. A thorough analysis of the literature, as it relates to Pathways, is covered in the next section of this chapter.

Career Counseling

History

The birth of the career counseling field, then known as vocational guidance, is credited to Frank Parsons, and dates back to the early 20th century. At this time, the United States was experiencing a major societal transition from an agriculture-based economy to the industrial age. It is from this monumental shift that society recognized the need for job placement support (Pope, 1999).

Parsons, a social worker, helped young unemployed residents at a settlement house in Boston find work. Through this experience, Parsons developed a common sense framework for career counseling, focused on assisting people in three broad areas: 1) understanding themselves 2) gaining knowledge of training and work requirements in different fields; and 3) comprehending the relation of these first two factors. His intuitive foundation formed the basis of the first formal association of career counseling, the Vocation Bureau at Civic Service House in Boston in 1908. In 1913 the nation's preeminent career association was formed, originally named the National Vocation Guidance Association, and now known as the National Career Development Association (NCDA) (Pope, 1999).

Basic Assumptions

It is important to note how the NCDA, the recognized leader in the field, defines itself, the concept of work, and career development. The Association's one-sentence mission statement reads as follows: "NCDA inspires and empowers the achievement of career and life goals by providing professional development, resources, standards, scientific research, and advocacy" (National Career

Development Association, 2013). This broad mission is able to encapsulate the range of NCDA's scope of services, which includes research, publications, professional development, and advocacy.

The NCDA's definitions of work and career development come from a human development perspective, rather than one of economic functionality. In defining work, the association underscores social connections and self-determination: "work… represents the need to do, to achieve, and to know that one is needed by others and is important" (National Career Development Association, 2011). Likewise, NCDA supports a definition of career development that is much broader than its original concept, which was very much rooted in the economic need for job support.

> Career development is a continuous life process through which individuals explore activities, make decisions, and assume a variety of roles. Careers are formulated by the continuous evaluation of personal goals and the perception, assessment, and decisions regarding opportunities to achieve those goals. Career development occurs as educational and vocational pursuits interact with personal goals. It continues over the lifetime. (National Career Development Association, 2012)

From the perspective of the NCDA, career development is a continuous process, which, while personal in nature, still often requires the assistance of a trained professional.

Core Components

The career development field has not adopted an overarching framework; however, the work of Brown and Ryan Krane (2000) does offer insights into the critical components of career counseling. Through a meta-analysis that examined the presence or absence of 18 treatment components, the researchers identified five components that were found to be the most critical to career counseling: individualized interpretation and feedback; world of work information; modeling opportunities; attention to building a support network; and written exercises.

In recognition of the unique needs of each client, the first identified component is *individualized interpretation and feedback*. This provides clients with targeted attention and guidance regarding their individual career trajectory. This support can be effectively provided in groups, classes, or individual counseling sessions.

The second component, *world of work information*, refers to information related to specific careers. Study findings indicate that clients are interested in knowing the details of certain careers and are willing to conduct research. Career counselors are expected to direct clients to appropriate readings and, when possible, connect them to individuals who work in the specified field.

Third, Brown and Ryan Krane identified *modeling* as a critical component to career interventions. Modeling consists of exposing clients to others who have found success in the career exploration process. Hearing success stories first-hand from individuals who have been in a similar situation is motivating to those who are just starting the journey.

The fourth recommended component calls for career counselors to assist clients in building a *support network*. The career development process is challenging, and it is important that upon completion of a career intervention, clients still have a source of support. Counselors are encouraged to utilize exercises that will help clients to assist and develop networks that will support their career development.

The fifth and final identified component is *written exercises*, which are defined as, "exercises that prescribe activities for clients or encourage clients to record reflections, thoughts, or feeling concerning their career development" (Brown and Ryan Krane, 2000, p. 746). These written exercises can take various forms, and be directed toward a range of objectives. For instance, clients can be asked to keep a journal where they record and reflect upon information that may help them achieve their career goals. Two common themes were identified across all of the written exercises that were investigated: "1. Helping people establish work and life goals and plan for their implementation; and 2. Assisting clients to gain accurate, nonstereotypic information on occupational possibilities" (ibid., p. 746).

In addition to these proposed core components, researchers have identified the core forms of delivering career counseling. Based on the results of an extensive meta-analysis, Whiston (2002) identified seven distinct modes of delivery:

- Individual career counseling;
- Group career counseling;
- Group test interpretations;
- Workshops;
- Class interventions;
- Computer interventions; and

- Counselor-free interventions.

Studies of Effectiveness

Numerous studies have sought to determine the degree of effectiveness of each type of career intervention. Oliver and Spokane (1988) conducted a meta-analysis of career intervention studies conducted between 1950 and 1982. This analysis included 58 studies that involved 7,311 participants. Their results found two delivery modes to be more effective than the others: career classes and individual counseling.

Career classes can take a variety of forms. For example, some universities offer a one-semester career course for undergraduates. A large Midwestern university offers such a course, which guides students through three areas. To begin, students are given several assignments to help them "explore the possibilities" of various majors and careers (Scott & Ciani, 2008, p. 271). Next, students gain insight and experience into particular careers by conducting informational interviews and attending career panels organized by the professor. In the final unit, "prepare yourself," students develop a résumé, engage in mock interviews, and receive an overview of job-search strategies (ibid.).

As the name implies, individual career counseling refers to one-on-one sessions between a counselor and client. In these private sessions counselors are expected to take into consideration the various environmental contexts affecting clients' career development. By identifying any existing barriers, clients can then be counseled on how to leverage their strengths and overcome the identified barriers (O'Brien, 2001).

Using the same strategies concerning general effectiveness, another meta-analysis of career interventions was published (Whiston, Sexton, & Lasoff, 1998). This analysis continued where Oliver and Spokane left off, examining career intervention studies published between 1983 and 1995. This meta-analysis included 47 different studies, involving 4,660 participants. Through an extensive examination of the data, it was determined that individual career counseling is the most effective intervention mode.

Whiston (2002) analyzed the results of two aforementioned meta-analyses, in order to offer further insights onto the most effective modes of delivery. This meta-meta-analysis substantiated the earlier conclusions. According to Whiston's findings, the most effective methods for the delivery of career interventions are *individual career counseling* and *career counseling classes/ workshops*. Depending on the context and stated goals, one or the other method is superior. In order to provide effective gains in the shortest amount of time, individual career counseling is the best option. Of course, however, resource constraints often limit the amount of time that career counselors can dedicate to working with clients one-on-one. In such cases, workshops or classes are an effective alternative, allowing counselors to serve a large number of clients at one time (Whiston, 2002).

Findings showed counselor-free intervention to be the least effective career intervention. This approach has clients engaging in the career development process without the aid of a counselor by, for example, reading job information on their own. Whiston's analysis found this method to consistently be "not effective to minimally effective" (Whiston, 2002, p. 231). The data indicate that, for most populations, career exploration is most effective when a counselor is directly involved who can provide assistance and feedback. Indeed, "… the past 50 years of career interventions research reflect that *counseling* needs to be integrated into the delivery of any type of career intervention" (emphasis, mine) (ibid., p. 232).

Other career intervention studies have examined the concept of self-efficacy. According to the American Psychological Association, self-efficacy is "the set of beliefs that one can perform adequately in a particular situation" (2013). Here I briefly highlight two studies that investigated how self-efficacy affects the career trajectories of young people.

A study of adolescents in Appalachia found that increasing career self-efficacy, and promoting a positive outlook of future outcomes, fosters adolescents' career development (Ali & Saunders, 2009). A separate study (Byars-Winston, 2010) examined the self-efficacy of African American college students. Results indicate that students' career indecision was the result of low self-efficacy and emotional maturity. Based on these findings, the researchers recommended that career interventions, particularly for this population, emphasize and foster self-efficacy and emotional intelligence.

School Counseling

<u>History and Background</u>

The existence of school guidance counseling is quite new. It was only in the 1970's that the idea for guidance programs was proposed. The concept was for "school counselors [to] provide a systematic program rather than a loosely defined set of services" (Whiston, Eder, Rahardja, &Tai, 2011, p. 37). Two influential manuals (see Gysbers, 1974; Gysbers & Moore, 1981) provided schools with an initial framework for implementing counseling programs. This framework recommended four modes of delivery: guidance curriculum, individual planning, responsive services, and system support.

As the field of school counseling evolved, a professional association emerged. The American School Counselor Association (ASCA) was founded in 2003, and soon thereafter developed a comprehensive national model for school counseling, which is rooted in the foundation laid by Gysbers and Moore (Whiston et al., 2011). The ASCA National Model is the accepted framework in the field of school counseling.

Basic Orientation

While the importance of school counseling is widely accepted, the field's limited resources contradict this point. According to the ASCA, nationally there is an average of one guidance counselor for every 471 students. It is important to note that this figure is nearly double the ASCA's recommended ratio of 1:250. In Massachusetts, the ratio is only slightly better at 1:441 (American School Counselor Association, 2011). Clearly, school counselors are facing a serious capacity issue. For schools that predominantly serve students of color, the situation is even more strained.

Research that focused on urban schools (2004) indicates that counselors who work at schools where a majority of the students are Black, are faced with these limitations: 1) higher student-to-counselor ratios; 2) fewer college planning resources; and 3) lack of a schoolwide college going culture. Furthermore, Black and Latino students are more likely to have less well-trained guidance counselors (Corwin, Venegas, Olivarez, & Colyar, 2004). This is particularly troubling when considering the research which shows how First Generation College Students, who are often low-income youth of color, require even more attention and assistance regarding college planning than their peers (Bryant & Nichols, 2011). Thus, those who are in the greatest need of a strong school counseling system are the least likely to have it.

School counselors are also limited by insufficient training. Research uncovered that current degree programs for guidance counselors are inadequate (McDonough, 2004). Many lack coursework on how to help students and their families make the best postsecondary choices and navigate college financing. Moreover, in most states, guidance counselors are not required to attend professional development training, which seriously hampers their ability to stay up to date on the latest research and trends in the field (Johnson, Rochkind, Ott, & Dupont, 2010).

Core Components

The ASCA National Model (2005) recommends that schools utilize three core components: guidance curriculum; individual student planning; and responsive services. Guidance curriculum is defined as structured lessons designed to "to facilitate the systematic delivery of guidance lessons or activities to every student consistent with the school counseling program's statements of philosophy, goals, and student competencies" (American School Counselor

Association, 2005, p. 40). The guidance curriculum equips students with knowledge and skills in three areas: academic achievement; career development; and personal/social growth. The guidance curriculum can be delivered in a few different settings, including classrooms and small group workshops outside of class time.

Individual student planning refers to school counselors' coordination of "ongoing systemic activities designed to assist students in establishing personal goals and developing future plans" (ibid., p. 41). It is within this component that students explore and evaluate their educational, occupational, and personal goals. Specifically, "school counselors help students make the transition from school to school, school to work, or school to higher education or career and technical training" (ibid., p. 41). Generally, given the personalized nature of this work, these activities are delivered on an individualized basis.

The ASCA's final recommended component, responsive services, includes activities that are intended to meet students' immediate needs and concerns. "School counselors offer a range of services along the continuum from early intervention to crisis response to meet students' needs" (ibid., p. 42). These services include individual counseling, group counseling, suicide prevention, and crisis management.

Studies of Effectiveness

A meta-analysis (2011) provides quantitative evidence as to the overall effectiveness of school counseling. Further, according to their analysis, there is empirical support for each of the three core components of the ASCA National

Model: guidance curriculum, individual planning, and responsive services. This meta-analysis examined 117 studies, involving 153 school counseling interventions and 16,296 students (Whiston et al., 2011).

In their review of the effects of a *guidance curriculum*, the evaluators investigated 57 guidance programs across the country. The evaluation found that students who attend a school *with* a guidance curriculum tend to score one-third of a standard deviation better on exams testing certain knowledge and skill acquisition than those students who did not receive such lessons. Only ten of the 157 studies concerned the second component – *individual student planning*. A review of these ten studies revealed that individual student planning has a statistically significant effect on students' achievement outcomes through the development of effective and future-oriented goal setting. Lastly, in reviewing dozens of studies regarding *responsive services*, it was found that such interventions have a significant, positive effect on the well being of high school students (ibid., 2011).

While some schools have fully implemented the ASCA National Model, other schools offer less comprehensive services. One study (1997) sought to identify the differences in student outcomes, if any, between high schools with fully implemented guidance programs to those with a less robust system. They found that students at a school with a comprehensive and fully implemented program were more likely to report the following: "a) they had earned higher grades; b) their education better prepared them for the future; c) their school made more career and college information available to them; and d) their school had a more positive climate" (Lapan, Gysbers, & Sun 1997, p. 292).

A team of researchers examined data (2011) from the Educational Longitudinal Study (ELS) of 2002 in order to investigate how high school college counseling affects college application rates. The study included a nationally representative sample of 4,835 high school students, tracking them from tenth to twelfth grade (Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy 2011).

Their examination of the ELS data uncovered two critical findings. First, students attending schools with a lower student-to-counselor ratio were more likely to apply to two or more schools, as opposed to none. Second, the earlier students engage with a school counselor, the greater their likelihood of applying to college. Specifically, this result applied to those students who had seen a counselor for college information by the tenth grade. Thus, the overall findings of show that "both the number of school counselors in a school and students' [initial date of] contact with the school counselor for college information appear to have an effect on college application rates" (ibid., pp. 194-195).

College[4] Access and Success

<u>History and Background</u>

The field of college access and success dates back to the 1960's. In 1964 President Johnson signed the Economic Opportunity Act, in turn, creating the Office of Economic Opportunity, which launched the TRIO initiative. The TRIO initiative included three college preparation programs targeted toward

[4] Unless indicated otherwise, in using the term "college" I am referring to the array of postsecondary options, including certification programs, 2-year degrees, and 4-year degrees.

disadvantaged students: Upward Bound, Talent Search, and Student Support Services. Today there are seven programs under the TRIO umbrella, all of which target different disadvantaged populations including those who are low-income, struggling with academics, first generation college goers, and students of color. The federal government grants funding to both schools and community-based organizations so that they may offer TRIO programs to their students (McElroy & Armesto, 1999).

Today, there are over 1,000 college outreach programs in the U.S., all taking various forms; however, they are united on one, guiding principle: "by encouraging students to set their sights on higher education, these programs attempt to engage students… and improve their chance of enrolling and graduating from college" (Domina, 2009, p. 127). According to data from the Educational Longitudinal Study of 2002 (Ingels, Burns, Charleston, Xianaglei, & Forrest Cataldi, 2005), five percent of all U.S. public school students participate in a college outreach program for disadvantaged students.

There are two models of college outreach programs: *targeted* (e.g. TRIO programs, Posse Foundation, Summerbridge, and Quantum Opportunities) and *schoolwide* (e.g. College Bound, GEAR UP, and AVID). As the names suggest, targeted programs serve a small, handpicked group of students, while schoolwide interventions service all of the students in a chosen high school or community. Targeted programs "are all based on the assumption that direct intervention can change the educational career of participating students" (Domina, 2009, p. 128). By contrast, schoolwide programs believe that students form their educational aspirations through a social process, whereby they "respond to teacher expectations as well as the behavior and aspirations of their peers" (ibid., p. 129).

Basic Assumptions

The field of college access and success is based on several, interrelated assumptions. The first foundational assumption is the paramount importance of completing a degree beyond high school, both from the perspective of the individual and the country as a whole. The Bureau of Labor Statistics released data (2010) showing that the unemployment rate for those with a high school diploma is more than double that of those with a bachelor's degree or higher. Furthermore, high school graduates are significantly more likely to be low-wage earners, paid by the hour, and bounce from job to job. According to President Obama's Council of Economic Advisors, in order to remain competitive on the global scale, it is imperative that the U.S. produce more college-educated workers (Executive Office of the President, 2009).

The field is also based on the belief that the lack of college-educated Americans is *not* due to a lack of college aspirations. In fact, in the past several decades there has been a substantial increase in the percentage of high school students who aspire to a college degree. From 1980 to 2002 the percentage of tenth grade students who expressed a desire to earn a college degree doubled from 40% to 80% (Roderick, Nagaoka, & Coca, 2009). However, even with this increased rate of college aspirations, only 40% complete a degree by the time they are 35 (Johnson, Rochkind, Ott, DuPont, & Hess, 2011).

The aspirations-attainment gap is largest for students of color. While more than 50% of Black and Latino students enroll in college, their respective completion rates are only 18% and 11%. By comparison, 34% of White students complete a Bachelor's degree program (Roderick et al., 2009).

It is also accepted that high schools are instrumental in preparing students for the transition to higher education and, ultimately, a career. The American Youth Policy Forum, a nonprofit and nonpartisan research organization, defines college- and career-readiness as, "being prepared to successfully complete credit-bearing college coursework or industry certification without remediation, having the academic skills and self-motivation necessary to persist and progress in postsecondary education, and having identified career goals and the necessary steps to achieve them" (Hooker & Brand, 2009, p. 8). Unfortunately, data reveal that many high school graduates are neither college- nor career-ready.

According to the National Center for Education Statistics, 36% of U.S. undergraduates are taking remedial courses. The breakdown of remedial course taking by race shows that Black and Latino students are the most ill-prepared for college: Black – 45%; Hispanic – 43%; Asian – 38%; and White – 36% (Aud, Hussar, Kena, Bianco, Frohlich, Kemp, & Tahan, 2011). Looking at career readiness, researchers conducted a survey (2006) of over 400 U.S. employers, which revealed that more than 40% of employers believe that high school graduates are deficient in their overall preparation for entry-level positions. These reported deficiencies include the basic skills of math and reading comprehension, as well as applied skills such as written communication, professionalism, and critical thinking (Casner-Lotto & Barrington 2006).

Core Components/Framework

There is no universally accepted framework for improving college access and success; however, many researchers have sought to identify the most essential and effective elements of this work. Here I will describe and compare the findings of two such research teams. The first is the Chicago-based team of Roderick, Nagaoka, and Coca (2009) who identified the essential skills that high schools must impart to ensure that students enroll and succeed in college. The second is a team associated with the American Youth Policy Forum (Hooker & Brand, 2009), who examined the most effective and critical elements of college preparation programs.

According to Roderick, Nagaoka, and Coca (2009), there are four essential skills that high schools must impart: basic skills and content knowledge, core academic skills, non-cognitive skills, and college knowledge. The first three identified skill sets are rather straightforward. *Basics skills and content knowledge* refer to foundational academics that are specific to a certain subject area. *Core academic skills* include writing and analytic thinking, which "are not subject-specific, but rather allow students to engage in work in a range of disciplines" (Roderick et al., 2009, p. 190). And third, *non-cognitive skills* include "a range of behaviors that reflect greater student self-awareness, self-monitoring, and self-control [including] study skills, work habits, time management, help-seeking behavior, and social problem-solving skills" (ibid., p. 190).

The fourth and final identified skill set, *college knowledge*, "includes the information and skills that allow students to successfully navigate the complex college admissions and financial aid processes, as well as develop an understanding of college norms and culture" (ibid., p. 190). College knowledge is broken down into three equally important sub-parts. First, high schools must "build strong systems of support for the college search and application process during junior and senior years" (Roderick, Nagaoka, Coca, & Moeller 2008, p. 7). Second, schools should focus on developing a strong college-going culture. Data indicate that the single greatest predictor of college enrollment was the college-going culture of a student's school. Lastly, high schools must better inform students on the FAFSA process, other ways to finance college, and the significant difference in costs among various college options (Roderick et al., 2008).

Hooker and Brand conducted a review (2009) of 23 youth-serving programs that provide college and career preparation. These 23 programs were chosen based on the fact that a rigorous evaluation was conducted of each one within the past five years (2004 or later). Based on an extensive investigation into each program, and its corresponding evaluation, Hooker and Brand identified six elements that make up effective programs, two of which relate to the findings of Roderick, Nagaoka, and Coca. The first three elements fall into the program component category – rigor and academic support, relationships, and college knowledge and access – while the final three elements are more accurately described as program philosophies – relevance, youth-centered, and effective instruction.

Hooker and Brand's first identified element, *rigor and academic support*, refers to tutoring and academic support services, as well as the fostering of a "culture of high expectations" (Hooker & Brand, 2009, p. 28). This element strongly correlates to the first two elements identified by Roderick and colleagues: basic skills and content knowledge, and core academic skills. Here the two groups of researchers appear to agree that it is the responsibility of the high schools to teach basic and academic skills, while college preparation programs are well suited to provide the complementary services of academic tutoring and support.

Second, Hooker and Brand found that effective programs integrate *relationships* into the programmatic framework. Relationships refer to connections with "caring, competent adults and supportive peer networks," as well as exposure to role models, small learning communities, and teambuilding opportunities (ibid., p. 28). These relationships "facilitate the positive youth development opportunities necessary for successful transitions through middle and high school and into postsecondary institutions" (ibid., p. 28).

Hooker and Brand's third recommended component, *college knowledge and access,* responds to the belief that, "youth need early exposure to the world of college in order to develop a college-going identity and to understand how the structures, opportunities, and demands of higher education differ from high school" (ibid, p. 29). This component also specifies that programs must provide assistance with financial planning, including the Free Application for Federal Student Aid (FAFSA) process and scholarship applications. This component mirrors Roderick's fourth component, *college knowledge*. In this case, rather than complementing one another, these two suggested components are duplicative. (This overlap reflects the fact that there is no agreement on which type of institutions or programs are best equipped to provide college access and success resources. As a result, these services are offered in myriad ways by countless schools and organizations.)

Hooker and Brand's final three recommended elements speak to the philosophical underpinnings to which successful programs should adhere. First, *relevance* is achieved by offering real world learning opportunities. Programs that utilize an applied learning methodology, through, for example, project-based opportunities, "allow youth to engage more deeply in their education, develop important employer-desired skills, enhance their technical abilities, and reinforce and supplement theoretical knowledge" (ibid., p. 30).

Hooker and Brand also found that the most effective programs were *youth centered*, offering legitimate opportunities for youth to have a voice in decision-making. This is particularly critical for older student who, from a developmental perspective, need opportunities to express their independence and self-sufficiency. Furthermore, it is important that programs avoid a one-size-fits-all approach and, rather, service the unique needs of each student (ibid., 2009).

Lastly, Hooker and Brand found that successful programs require *effective instruction*. Educators require ongoing professional development, low student-to-teacher ratios, and sufficient time for lesson planning. These resources allow teachers, both in school and out-of-school, to learn new instructional methods, effectively manage the classroom, and develop a more coherent curriculum (ibid., 2009).

Studies of Effectiveness

Domina (2009) conducted a quasi-experimental study comparing the two models of college preparation programs: targeted and schoolwide. Examining data from an Educational Longitudinal Study (2002), Domina found that "college outreach programs *can* have positive effects on students' educational outcomes" (emphasis mine) (Domina, 2009, p. 147). However, the effects uncovered "are modest, and in most cases, these effects are not significantly different from zero" (ibid., p. 147).

In comparing the two models, the effects of schoolwide interventions are slightly more encouraging than those of the targeted programs. These findings suggest that schoolwide programs may produce greater effects than narrowly targeted programs. In targeted programs, many of the students who participate, "are already well on their way to academic success [thus], these programs can only have modest direct effects on participating students" (ibid., p. 149). On the other hand, schoolwide programs seem to "have broader effects on the less-involved [students]," indicating that it may be more effective to target students who have not yet developed any college plans (ibid., p. 149).

A longitudinal study, directed by Arnold (2009), of over 500 high school graduates across 50 schools, uncovered the "summer flood" phenomenon. The study revealed that, "for low-income students who have made it through the entire admission and financial aid process, the education pipeline springs a leak at the very last moment: during the summer after high school graduation" (Arnold Fleming, DeAnda, Castleman, & Wartman, 2009, p. 24). Survey participants were graduates of Big Picture Learning Schools (BPLS), which are innovative urban high schools that have received national acclaim for their ability to graduate high rates of low-income students, and help them gain admission to college. Most BPLS graduates fall into one or more of the following categories which make them "least likely to complete high school or attain college degrees: low-income, urban, non-white, and the first generation in their families to attend college" (Arnold et al., 2009, p. 24).

The study uncovered some sobering trends. While 95-100% of BPLS students are accepted to college, more than one-third of them reconsider or change their college plans over the summer following high school graduation. In the summer students lack critical resources and support (i.e. school/college counselors), which leads many young people to make ill-informed choices, especially regarding financials.

Since most of these students are low-income, they are almost completely reliant on financial aid and scholarships. Unfortunately, "many students still face a significant gap between their financial aid award and their families' ability to pay the costs of higher education" (ibid., p. 27). Summer is often the time when school loans are secured, which is a confusing and complex process, especially for students and their families who have no prior experience with such matters. In the end, some students, feeling the anxiety and apprehension of their families, will opt out of loans. As a result, many will switch from a 4-year school to a community college, and one in five students decide to not go to college at all.

As a follow-up to the longitudinal study, seven Big Picture Learning Schools participated in a randomized experiment (2008) that looked at formal summer interventions. According to National Clearinghouse data, high school graduates who were in the treatment group and, thus, received support over the summer, were statistically significantly more likely than their peers to follow through on their college plans. The enrollment rate in the treatment group was 15 percentage points higher than for those in the control group (ibid., 2009). Based on the findings of the original longitudinal study and the follow-up, Arnold strongly recommends that both high schools and postsecondary institutions step up to provide support for low-income and first generation students throughout the year, including the summer.

Noncognitive Skills/Personality Traits

<u>History</u>

Psychologists have studied personality since the early twentieth century. Since that time researchers have sought out a shared framework, or taxonomy, to categorize personality traits, "…turning to the natural language as a source of attributes for a scientific taxonomy" (Pervin & John, 2001, p. 3). In 1936, Allport and Odbert took on the daunting task of compiling all of the personality-relevant terms from an English dictionary. Their final list included nearly 18,000 terms (ibid.). Since that time, many other psychologists have tackled the same task, attempting to group personality themes into a more concise and usable format.

After decades of research and discussion, the field of psychology is finally "approaching a consensus on a general taxonomy of personality traits, the "Big Five" personality dimensions" (ibid., p. 2). The "Big Five" overarching personality factors are openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. (See Table 3.3 for definitions of the Big Five). The Big Five came together through the analyses of many different researchers including Fiske (1949), Tupes and Christal (1961), Norman (1963), and Digman and Takemoto-Chock (1981).

Although the psychology field is *approaching* consensus on the use of the Big Five, it has not yet been universally recognized or approved. "In contrast to biological taxonomies, the Big Five taxonomy provides descriptive concepts that still need to be explicated theoretically, and a nomenclature that is still rooted in the 'vernacular' English" (ibid., p. 44). While the Big Five does lack scientific language, it has the advantage of being easily understood by everyone, researchers and lay people alike (ibid.).

In addition to psychologists, many economists study the causes and effects of personality traits, which they term "noncognitive abilities." Psychologists avoid this term, expressing that "'noncognitive' traits creates the potential for much confusion because few aspects of human behavior are devoid of cognition" (Borghans, Duckworth, Heckman, & ter Weel, 2008, p. 974). Despite this difference in labeling, both fields agree that personality traits and noncognitive abilities are the opposite of those characteristics and skills associated with cognitive abilities, which relate to solving abstract problems (Borghans, et al., p. 981).

Basic Assumptions

The field of personality psychology is based on several foundational assumptions. The field has a distinct view on the development of personality traits, their relative malleability, and their relative predictability and importance in terms of school and life outcomes. It is common for personality psychologists to describe personality traits through a direct comparison to cognitive skills.

Personality traits continue to develop throughout adolescence and well into adulthood. Investigations have shown that IQ plateaus by age six or eight, whereas personality does not plateau until at least age 50 (Borghans et al., 2008). More important than the long-term development of personality traits is their malleability.

A wide variety of interventions and programs have been shown to affect participants' noncognitive skills. In a study of high school students (described in detail in a later section), it was shown that character strengths, a subset of personality traits, "are malleable [and] they can be taught and acquired through practice" (Gillham et al., 2011, p. 31). In examining the noncognitive trait of optimism, Forgeard and Seligman (2012), found that certain interventions can successfully help pessimists to become more optimistic. One such intervention, cognitive therapy, helps clients to identify and modify negative thinking. In addition, Seligman and colleagues (2009) have developed a 12-session curriculum, the "Penn Resiliency Program," to assist adolescents to become more optimistic.

Heckman, a leader in the field, states that, "…noncognitive ability is as important, if not more important, than cognitive ability" (Heckman, Stixrud, & Urzua, 2006, p. 477). Research has shown that, "both cognitive ability and personality traits predict important life outcomes including schooling, wages, crime, teenage pregnancy, and longevity" (Borghans et al., 2008, p. 976). Despite evidence of their importance, personality traits are overshadowed by cognitive ability.

> Numerous instances can be cited of high-IQ people who failed to achieve success in life because they lacked self-discipline and low-IQ people who succeeded by virtue of persistence, reliability, and self-discipline… It is thus surprising that academic discussion of skill and skill formation almost exclusively focus on measures of cognitive ability and ignore noncognitive skills. (Heckman & Rubinstein, 2001, p. 145)

In order to alter the downgraded degree of importance that is generally given to noncognitive skills, the classification, testing, and science of personality psychology continues to be refined.

Core Components/Framework

As stated previously the Big Five is the most oft-utilized framework by personality psychologists. The five factors are openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. The American Psychological Association Dictionary (VandenBos, 2007) offers clear and concise definitions of each factor in the following table.

Table 3.3: The Big Five Personality Factors

Factors	Definition of Factor
Openness to experience	The tendency to be open to new aesthetic, cultural, or intellectual experiences.
Conscientiousness	The tendency to be organized, responsible, and hardworking.
Extraversion	An orientation of one's interests and energies towards the outer world of people and things rather than the inner world of subjective experience; characterized by positive affect and sociability.
Agreeableness	The tendency to act in a cooperative, unselfish manner.
Neuroticism	Neuroticism is a chronic level of emotional instability and proneness to psychological distress. Emotional stability is predictability and consistency in emotional reactions, with absence of rapid mood changes.

Studies of Effectiveness

"In the psychology literature there is substantial evidence on the importance of personality traits in predicting socioeconomic outcomes, including job performance, health, and academic achievement" (Borghans et al., 2008, p. 1006). Here I summarize four such studies that analyzed a wide age range of youth, including preschool, middle school, high school, and college students.

An evaluation, the Perry Preschool Study (2005), was designed to determine the effects of preschool education on low-income children. A sample of 123 low-income African American children were identified from the Ypsilanti, Michigan school district and randomly assigned to the treatment group, which attended Perry Preschool, or the control group, which received no preschool education. Study participants were tracked from their first year of preschool, in 1962, through the age of 40, in 2002 (Schweinhart, Montie, Xiang, Barnett, Belfield, & Nores, 2005). Researchers uncovered some significant differences in life outcomes between the two groups (Schweinhart et al., 2005).

The treatment group fared better in a variety of education and economic related outcomes, as compared to their peers in the control group. For example, only 21% of the Perry Preschool students had to repeat a grade, while 42% of the students in the control group were held back in school for a year or more (ibid.). Also, the employment rate of the two groups was significantly different. Data reveal that 73% of Perry Preschool Students were employed at age 40, compared to just 56% of the control group students (ibid.).

The most interesting piece of these results is that the outcomes of each group are not due to differences in cognitive ability. By age ten the mean IQ of the treatment group was the same as that of the control group. In a follow-up analysis led by Heckman (2007), it was found that the preschool intervention did not raise students' cognitive abilities, but rather it affected their noncognitive traits, including motivation. According to this re-analysis, the drastic difference in life outcomes between the treatment and control groups were a result of their differing personality traits, which are credited to the preschool intervention, or lack thereof (Heckman & Masterov, 2007).

In a longitudinal study of 140 8th grade students, Duckworth and Seligman (2005) found that self-discipline (a personality trait) better predicted final grades than did IQ (a measure of cognitive ability). The study's participants included two consecutive cohorts of 8th grade students from a socioeconomically and ethnically diverse magnet school in the Northeast. A questionnaire was administered to students, parents, and teachers in the fall, and then re-administered seven months later. Utilizing two complementary measures, students had to self-report their levels of self-discipline, while the teachers and parents had to rate the self-control of their students/children.

The results were quite clear; "highly self-disciplined adolescents outperformed their more impulsive peers on every academic-performance variable, including report-card grades, standardized achievement-test scores, admission to a competitive high school, and attendance" (Duckworth & Seligman, 2005, p. 941). Across every variable, self-discipline better predicted the outcomes than did IQ.

The researchers concluded that many American students are "falling short of their intellectual potential [due to] their failure to exercise self-discipline" (ibid., p. 944). Duckworth and Seligman believe that "programs that build self-discipline may be the royal road to building academic achievement" (ibid., p. 944).

Focusing on high school aged youth, one study examined the effect of "noncognitive skills on the accumulation of human capital and on labor market outcomes in the context of the GED program" (Heckman, 2000, p. 1). The GED is a "second-chance program that administers a battery of cognitive tests to self-selected high school dropouts to determine whether or not they are the academic equivalent of high school graduates" (Heckman & Rubinstein, 2001, p. 146). Utilizing data from the National Longitudinal Survey of Youth, they investigated the cognitive test scores, as well as the noncognitive measures, of 14 to 21 year olds who were followed from 1979-1994 (Heckman, 2000).

Their findings indicate that completing the GED is a mixed signal. "Dropouts who take the GED are smarter (have higher cognitive skills) than other high school dropouts;" however, "controlling for measured ability… GED recipients earn *less*, have lower hourly wages, and obtain lower levels of schooling than other high school dropouts" (Heckman & Rubinstein, 2001, p. 146). The reason: "GED recipients lack the abilities to think ahead, to persist in tasks, or to adapt to their environments" (ibid., p. 146). In summary, GED recipients' "surplus of cognitive skills is not outweighed by [their] deficit in noncognitive skills" (Heckman et al., 2006, p. 413).

Two important conclusions came out of this analysis of the GED. First, schools must develop a more comprehensive evaluation system that accounts for their effects on cognitive skills *and* noncognitive skills, as these traits are also highly valued in the labor market. Second, “given the evidence on the quantitative importance of noncognitive traits, social policy should be more active in attempting to alter them, especially for children from disadvantaged environments...” (Heckman & Rubinstein, 2001, pp. 148-149).

A study of 149 high school students found that character strengths which, “build connection to people and purposes larger than the self predict future well-being” (Gillham, Adams-Deutsch, Werner, Reivich, Coulter-Heindl, Linkins, . . . & Seligman, 2011, p. 31). Participants were evaluated four times over the course of two years. Character strengths were measured using Park and Peterson’s Revised Values in Action Inventory of Strengths for Youth (VIA-Youth), which was developed in 2006. The VIA-Youth questionnaire consists of nearly 200 items, which participants must rate on a Likert scale ranging from 1 (‘Not like me at all’) to 5 (‘Very much like me’).

The data indicate that, “adolescents’ character strengths predicted their subsequent well-being,” including happiness and life satisfaction (Gillham et al., 2011, p. 40). For example, students with higher levels of self-regulation at the start of high school reported lower levels of depression two years later. The researchers state that, “interventions [which] target adolescents with low levels of strengths may be especially important” (ibid., p. 41).

An Ireland-based research team (2013) investigated the role of noncognitive traits on the study behaviors of undergraduate students. A web-based survey collected feedback from 4,770 Irish university students. The survey was designed to elicit the percentage of lectures that students regularly attend, as well as how many hours they dedicate to studying each week (Delaney, Harmon, & Ryan, 2013).

Controlling for a wide range of variables, including student demographics, family background, and classroom conditions, researchers found that "certain noncognitive traits are virtually the only variable which predict greater amounts of study behavior" (Delaney et al., 2013, p. 182). Data revealed six noncognitive traits that determine lecture attendance and study hours: conscientiousness, future-orientation, willingness to take risks, agreeableness, openness to experience, and neuroticism. "Overall, the biggest effects on students' engagement with the study process arise from being conscientious (that is, dependable and self-disciplined; not disorganized and careless) and being future-oriented" (ibid., p. 189).

Literature Review: Analysis

In this section I describe and analyze the findings of my literature review with the aid of tables, which provide a concise, at-a-glance overview of the research. I begin by describing common themes or patterns across the four areas that encompass the Pathways component: career counseling; school counseling; college access and success; and noncognitive skills. Next, I discuss evidence from the research that I found to be particularly compelling. I conclude by comparing the literature findings directly to the Pathways Framework. This comparative approach highlights which components, delivery methods, and tools of Pathways are in line with evidence-based practices.

Common Themes and Patterns

As revealed below in Table 3.4, there are relatively few commonalities across the four areas. In examining the history and background of the four subject areas, the common connections are limited and relatively weak. Both career counseling and the field of personality psychology (or, the study of noncognitive skills) emerged in the early 20th century; however, I think this common thread is more a matter of happenstance, than an indication of any direct linkage between the two fields.

On the other hand, school counseling emerged immediately after the launch of college access and success, which I do believe speaks to their interrelation. College preparatory programs are offered in both out-of-school and in-school settings. School-based programs, naturally require proper integration and support from the school system, which, in most cases, means a collaborative relationship with school guidance counselors. In this way, it is fitting that school counseling emerged immediately after college access and success.

Likewise, it is not surprising that racial inequality is highlighted in the school counseling research, as well as the literature on college access and success. One of the basic assumptions of school counseling is that schools that predominantly serve students of color are the most under resourced. Generally, these schools have an even higher ratio of counselors to students than the national average of 1:471. Similarly, the research on college access and success reveals that Black and Hispanic high school graduates are the most ill prepared for college and the working world, indicating unequal schooling for these populations. The fields of school counseling and college access and success are both trying to address this racial inequality.

The final common pattern to emerge is between career counseling and school counseling. Individualized services are included in the core components of each field. Furthermore, there are studies from each field that show the effectiveness of the individualized approach; hence, its inclusion in each field's overarching framework.

Compelling Findings

In developing my literature review, I scoured and read an abundance of research. Ultimately, I found some of the evidence to be more compelling, by which I mean findings that were studied, supported, and/or cited by multiple sources, than other data. I address each of the four subject areas one at a time.

The evidence that I found to be most compelling falls across two categories: *basic assumptions*; and *studies of effectiveness*. To focus on these two groupings, I truncated the above-listed table and highlighted the content for discussion (Table 3.5).

In the career counseling field, I feel that the effectiveness of an individualized delivery method is the most persuasive piece of research. Given the personal nature of career decisions, this method makes logical sense. More importantly, three different meta-analyses cited the effectiveness of an

Table 3.4: Summary of Findings with Common Themes/Patterns

	Career Counseling	School Counseling	College Access and Success	Noncognitive Skills
History and Background	- Dates back to early 20th c. - Professional association founded in 1913: NCDA	- Proposed in the 1970s - Professional association founded in 2003: ASCA	- Launched in the 1960s - Today, there are over 1,000 college prep programs - Two models: a) Targeted b) Schoolwide	- Emerged in the early 20th c. - Differing terms: "noncognitive abilities" or "personality traits"
Basic Assumptions	- NCDA promotes the human development perspective of work: the need to do, and know that one is needed.	- Field is plagued by limited resources: a) Average counselor to student ratio is 1:471; highest at schools serving students of color b) Insufficient training for counselors	- Completion of a post-sec degree is critical - Many h.s. grads are not college- nor career-ready, especially Black and Hispanic students	- Personality traits: a) Develop well into adolescence, and even adulthood b) Are malleable and teachable c) Predict school and life outcomes
Core Components or Framework	Per Brown & Ryan Krane: 1. Individualized feedback 2. Career info 3. Modeling opportunities 4. Building a support network 5. Written exercises	Per ASCA: 1. Guidance curriculum 2. Individual planning 3. Responsive services	Per AYFP: 1. Academic support 2. Relationships 3. College info 4. Relevance 5. Youth-centered 6. Effective instruction	Per The Big Five: 1. Openness to experience 2. Conscientiousness 3. Extraversion 4. Agreeableness 5. Neuroticism
Studies of Effectiveness	- Effective modes of delivery: a) Individual counseling; b) Workshops - Effective method: fostering self-efficacy	- Effective elements: a) Guidance curriculum b) Individual planning c) Responsive services - Effective conditions: a) Low counselor to student ratio b) Early engagement with counselors, i.e. by 10th grade	- Effective models: Schoolwide is slightly more effective than targeted - Effectiveness of college counseling: Support in summer makes students more likely to follow through on college plans	- Preschool teaches key personality traits, which lead to better life outcomes - Self-discipline (a personality trait): Better predicts grades than IQ - Character strengths (subset of personality traits): Predict future well-being

individualized career intervention, making this a highly compelling finding.

In school counseling, the field's limited resources are a basic assumption that was mentioned across the literature. I did not find a single piece of research that countered this assumption. Looking at the studies conducted on school counseling, there are three findings that I find especially compelling. As with career counseling, individualized guidance and planning was shown to be effective. Seeing this theme across two different disciplines made the evidence more convincing.

Directly connected to the finding on the effectiveness of individual planning is the research recommending a low student to counselor ratio. Naturally, to allow for as much individual support as possible, the caseload of school counselors must remain low. Lastly, I find the study results showing the effectiveness of early engagement with a school counselor to be persuasive. The whole of a student's high school career dictates his/her postsecondary options, thus the guidance and information provided by a school counselor should not be reserved for seniors. Students must receive this support and knowledge as early as possible in order to understand how their high school years affect their futures.

Researchers and stakeholders alike, all appear to agree with the basic assumption that too many high school graduates are neither college- nor career-ready. Considering the fact that there are more than 1,000 college preparatory programs across the country working to address this issue, this assumption is particularly compelling. While no single program has emerged as the most effective in this arena, the evidence around the general effectiveness of college counseling services is extensive. In particular, I am convinced by research regarding the importance of year-round support. The college process is not limited to the school year, thus neither should college counseling.

The research regarding noncognitive skills is quite intriguing, as well as highly compelling. The field of personality psychology has been studied since the early 20th century, thus its findings are bolstered by decades of research and development. I find all three basic assumptions to be compelling, since each of them is supported by a substantial number of studies. The malleability, predictability, and long development cycle of personality traits is the crux of the field's importance. In particular, I find the study on self-discipline to be compelling. Having a foundational base of knowledge on the field, it is not surprising to see a study that shows self-discipline to be a better predictor of grades than IQ.

A Comparative Analysis: Pathways Framework vs. the Literature

TPP's Pathways Framework (Appendix I) is a working draft, which provides a four-page overview of the proposed program component, including the need it aims to address, its core elements, methods and tools, and the role and desired expertise of the Pathways Advisor. I begin by comparing the core elements of Pathways to the literature, followed by a comparison of its methods and tools to my research findings.

All three of Pathways' core elements – academic performance, higher education, and career planning - are in some way validated by the literature I reviewed. As exhibited in Table 3.6, I compared the sub-components of each of the three high-level elements to the existing literature. There are four sub-components of *academic performance*: discuss course schedule; review grades; compare current GPA to higher education options; and, as needed, connect to tutoring resources. All four of these sub-components are substantiated by the literature on college access and success.

Within Pathways' *higher education* element there are four proposed sub-components: overview of 1-, 2-, and 4-year postsecondary options; college field trips; financial planning; and assistance with applications. Again, every aspect of this element is validated by the college access and success literature. Specifically, I believe these sub-elements all fall within the *college information* component described by Hooker and Brand.

One of the two sub-components of *career planning* is supported by the literature on career counseling. As described in the Pathways Framework, part of this element involves mapping out career options with students, accompanied by the required education level and appropriate postsecondary programs. This sub-component is supported by the recommended core components of career counseling. This approach falls within the *world of work information* (abbreviated to "career info" in the table) component recommend by Brown and Ryan Krane. I did not find research that specifically called for educating clients on the job market. However, I also did not uncover anything in the literature that indicates that providing such information is ineffective or harmful.

Table 3.5: Findings with Particularly Compelling Evidence

	Career Counseling	School Counseling	College Access and Success	Noncognitive Skills
Basic Assumptions	- NCDA promotes the human development perspective of work: the need to do, and know that one is needed.	- Field is plagued by limited resources: a) Average counselor to student ratio is 1:471; highest at schools serving students of color b) Insufficient training for counselors	- Completion of a post-sec degree is critical - Many h.s. grads are not college- nor career-ready, especially Black and Hispanic students	- Personality traits: a) Develop well into adolescence, and even adulthood b) Are malleable and teachable c) Predict school and life outcomes
Studies of Effectiveness	- Effective modes of delivery: a) Individual counseling; b) Workshops - Effective method: fostering self-efficacy	- Effective elements: a) Guidance curriculum b) Individual planning c) Responsive services - Effective conditions: a) Low counselor to student ratio b) Early engagement with counselors, i.e. by 10th grade	- Effective models: Schoolwide is slightly more effective than targeted - Effectiveness of college counseling: Support in summer makes students more likely to follow through on college plans	- Preschool teaches key personality traits, which lead to better life outcomes - Self-discipline (a personality trait): Better predicts grades than IQ - Character strengths (subset of personality traits): Predict future well-being

Table 3.6: Core Elements of Pathways Framework vs. Literature

Core Elements of Pathways		Validation in Literature	Departure from Literature
Academic Performance	a) Discuss course schedule	**Yes**; falls under "academic support" in the framework for college access & success	
	b) Review grades	**Yes**; same as above	
	c) Compare GPA to higher education options	**Yes**; falls under "college info" in the framework for college access & success	
	d) Connect to tutoring	**Yes**; falls under "academic support" in the framework for college access & success	
Higher Edu.	a) Info on 1-, 2-, and 4-year options	**Yes**; falls under "college info" in the framework for college access & success	
	b) Field trips to schools	**Yes**; same as above	
	c) Financial planning	**Yes**; same as above	
	d) Help with applications	**Yes**; same as above	
Career Planning	a) Map out career options with edu. Requirements	**Yes**; falls under "career info" in the framework for career counseling	
	b) Educate on job market	**No**	Not cited in the research; but, it also does not contradict any of the research.

As currently envisioned, Pathways includes two methods of delivery and four tools. I found support in the literature for both methods, and all but one of the four proposed tools (see Table 3.7). Pathways' utilization of *one-on-one* sessions can be found within the frameworks of career counseling and school counseling. The second method, *group workshops*, is a recommended component of career counseling, and there are several studies that establish the effectiveness of delivering a career intervention in a group setting.

The first tool listed in the Pathways Framework is the *Pathways Plan*, which is described as a "written, working document that students will be required to complete and update on a regular basis." In this document, "students will have to: articulate their post-high school aspirations; reflect on their strengths and areas for improvement; justify their current coursework and extracurriculars; and list the steps for reaching their post-high school goals." This type of *written exercise* is one Brown and Ryan Krane's five recommended components for career counseling.

The next two Pathways' tools – *field trips* and *c-shuffles* – are both supported by the literature. TPP plans to organize field trips to different postsecondary institutions and businesses, and to coordinate career shuffles ("c-shuffles") where students can engage with professionals from various industries. Both tools will broaden students' college and career knowledge. Providing access to such information is emphasized by the career counseling field, as well as college access and success.

The last proposed tool of the Pathways Framework, a *transitional retreat*, is not mentioned in the reviewed literature from any of the four studied disciplines. Within my literature review there is nothing that speaks to the importance of opportunities for reflection and celebration. Nevertheless, I think TPP can still include this as a capstone to the Pathways experience, as it does not contradict any of my research findings.

Table 3.7: Delivery Methods and Tools of Pathways Framework vs. Literature

Pathways Framework		Validation in Literature	Departure from Literature
Methods	a) One-on-One	**Yes**; found in the frameworks of career counseling and school counseling.	
	b) Group Workshops	**Yes**; in the framework of career counseling.	
Tools	a) Pathways Plan	**Yes**; falls under "written exercises" in the framework for career counseling	
	b) Field Trips	**Yes**; falls under "career info" in the framework for career counseling, AND "college info" in the framework for college access and success	
	c) "C-Shuffles"	**Yes**; falls under "career info" in the framework for career counseling, AND "college info" in the framework for college access and success	
	d) Retreat	**No**	Not cited in research; but does not contradict any of the research.

Chapter IV: DISCUSSION and RECOMMENDATIONS

This chapter begins with a discussion of my findings from the participatory evaluation, as well as the literature review. Next, I discuss the perceived impact of my thesis process for The Possible Project, other organizations, and me as an evaluator. Lastly, in the Recommendations section, I offer my suggestions for how TPP can strengthen and improve Pathways.

Findings

Participatory Evaluation

The first objective of my thesis was to answer the following: For which component of the program is the TPP Team most interested in exploring the evidentiary base and why? Utilizing two types of evaluation, a Semi-Structured Interview and Post-Interview Questionnaire, I was able to answer the two parts of this question. Through the evaluation process it was found that the TPP Team was most interested in exploring the Pathways component, providing a clear answer for part one of the question.

Four out of the five staff members were aligned in ranking Pathways as the first priority for my thesis topic; however, their reasoning for this choice varied greatly. The four unique responses are listed out in Table 4.1.

I was not surprised by the TPP Team's decision that I research Pathways. Out of the five program components that I identified and offered up as a possible focus of my thesis, only Pathways had yet to be launched. Therefore, this component was (and still is) the greatest unknown for the organization. For me personally, Pathways was a very exciting choice. I was extremely motivated by

Table 4.1: Why Seek the Evidentiary Base for Pathways First?

Theme	Response
Long-term outcomes	"This is the most important component… as it is [the most] closely connected to our long-term outcomes."
Hiring	"We are about to get started with this and your research could direct hiring."
Research	"I feel there will be more information/research opportunities for this option."
Mission + Capacity	"I feel strongly that the mission of TPP is currently misaligned to its students and our capacity."

the fact that my research and findings could significantly impact the evolving framework for this yet-to-be-launched component.

Literature Review

The second question that my thesis sought to answer was the following: According to the available evidence, what are the best practices for attaining the goals to which this particular component is dedicated, and what theoretical and empirical supports exist in the literature? This question was answered by my literature review. I found, read, and analyzed a great amount of research on the four areas that pertain to the Pathways components: career counseling; school counseling; college access and success; and noncognitive skills (or personality traits).

The research provided evidence-based credibility to TPP's choice to include Pathways into its program model. The research regarding college access and success is quite clear on two key points. First, most high school graduates are neither college- nor career-ready, and this is especially true for students of color. Second, college preparation programs and counseling *can* effectively help students to become college- and career-ready.

The literature on career counseling and school counseling confirmed many of the beliefs already held by the TPP Team. There is strong evidence on the effectiveness of *individualized counseling* in the literature from the field of career counseling, as well as school counseling. In addition, evaluations from the career counseling arena demonstrate the effectiveness of *group workshops*. Both of these methods are proposed in TPP's current Draft Pathways Framework.

The school counseling literature confirmed the need for Pathways. There is universal agreement that, in general, U.S. public schools suffer from limited school counseling resources. Nationally, there is an average of just one school counselor for every 471 students, and, in many instances, students do not engage with their guidance counselor until their senior year. Research indicates that school counseling, which includes educating and guiding students on their postsecondary trajectories, is most effective under the following conditions: 1. A low counselor to student ratio (1:250 or less); and 2. Early engagement with a counselor (by sophomore year or earlier). As currently envisioned, TPP's Pathways Advisor would have a case load of no more than 85 students, and engagement would start in the 10th grade.

All of the literature regarding noncognitive skills was quite new to me. I, like the rest of the TPP Team, had read Paul Tough's 2012 book, How Children Succeed: Grit, Curiosity, and the Hidden Power of Character, which offers a short introduction to the research on personality traits, and character in particular. However, the literature review granted me the opportunity to dive deeper into the academic literature on noncognitive skills and develop a greater understanding of the field's evolution, major players, and, most importantly, key findings.

I found three findings, in particular, to be the most compelling and relevant to TPP's programming. First, research reveals that noncognitive skills develop well into adolescence. Second, these skills are malleable and teachable. And, third, noncognitive skills predict many important school and life outcomes.

Combined, these three findings offer a strong evidence-base for youth programs, such as TPP, to help foster and develop noncognitive skills.

Process

The third and final question that my thesis sought to answer is directed to TPP, as well as other, similar organizations: How might the results of this investigation, and the process undertaken be useful to TPP and other, similar organizations? I have chosen to unpack this question and respond to the utility for TPP first, and then for other non-profit organizations.

Utility of Thesis for TPP

Overall, I believe that my thesis is of great utility to TPP. The encouragement and enthusiasm that I have received from the TPP Team throughout the process, indicates that they agree and look forward to utilizing the results. As one staff member described, Pathways is possibly the most important component of the TPP Model since it is the element that is most closely tied to the organization's long-term desired outcomes.

This thesis has made a significant contribution toward The Possible Project's proof of concept, which will positively affect the organization in three critical ways. First, strengthening the evidence base of Pathways, arguably TPP's most vital program component, will help to attract and sustain funding. Second, a stronger proof of concept will make program expansion easier, as future communities will be more interested in welcoming TPP and offering partnership opportunities. Third, and most importantly, my research will bolster the efficacy of TPP's Pathways' services to youth.

I plan to share the results of this thesis with the TPP Team and the Board of Directors. I will email everyone an electronic copy of the full thesis, and present my work in a brief presentation. The presentation for the TPP Team and Board of Directors will slightly differ. For the TPP Team I will focus on my findings and recommendations of the literature review, as they are all well aware of the findings of the participatory evaluation. My presentation to the Board of Directors will include information on both of my methods, findings, and, of course, my recommendations related to Pathways.

Apart from the knowledge gained on Pathways, the TPP Team now has an understanding of how to develop an evidence-based rationale. The process that I undertook, or some version of it, could be repeated for the remaining three components of the program. Whether TPP chooses to conduct this work internally or collaborate with an external evaluation and research team, the TPP Team's knowledge and respect for the process will be helpful.

Utility of Thesis for Other Organizations

I believe that an evidence-based rationale is essential for any and every type of non-profit organization. Funders are no longer satisfied with anecdotal evidence of a program's need and/or effectiveness. Today's funders have set a higher bar and require organizations to conduct evidence-based research and build comprehensive evaluation systems. In the competitive field of non-profits, I believe that every organization must work to develop an evidence-based rationale. My thesis underscores the importance of an evidence-based rationale, and offers a model for undertaking such a process.

As a graduate student and TPP staff member, I was uniquely positioned to help develop TPP's evidence-based rationale. While I doubt the likelihood of this exact opportunity being readily available to most non-profits, I do think that my process can be easily modified to fit the resources and needs of other organizations. For instance, other organizations may want to save time and skip the participatory evaluation and dive right into conducting research. Alternatively, an organization may not want to rely on the work of just one researcher, and instead contract a team of researchers who will have the bandwidth to complete the process in a much shorter amount of time.

Even organizations that lack the funds to hire an evaluation team can pursue this critical work. By promoting such a research opportunity to local universities, a non-profit could reap some substantial benefits. Non-profits could potentially secure the research assistance of a low- or no-cost undergraduate, graduate, or even a doctoral-level student, who would have the resources and support of his/her university and professors.

Knowledge Gained on Evaluation

Through my experience as an internal evaluator, I had an applied learning experience that significantly increased my understanding of, and respect for, evaluation. I learned that evaluation requires careful, thoughtful planning. It could have been disastrous if I jumped into evaluating staff, without first considering my objectives, the participants, and my insider role.

Crafting an evaluation is a time-consuming and detail-oriented task, often requiring that the evaluator make substantial edits. Even once an evaluation is seemingly in final form, many evaluators will pilot the tool with a small pool of participants to see if additional improvements are needed. In the case of my Semi-Structured Interview, I quickly learned after conducting just one interview that my categorization of TPP's program components needed improving. From that point forward, I adjusted the interview to include the recommendations from this first interviewee.

To accurately analyze the results of an evaluation requires an objective, systematic process. An evaluator must be careful to not let her own opinions and beliefs affect the analysis of results. In my situation it was helpful to have a Coding Key and a spreadsheet in which to input answers. Plus, many of the questions were close-ended, which allowed me to simply let the numbers speak for themselves. This systematic approach minimized the chance of my own beliefs inadvertently tainting the analysis.

Lastly, I learned that evaluation requires flexibility and resilience. Many things can change over the course of an evaluation, including the amount and source(s) of funding, the timeline, and even the central question to be answered. Also, in some cases, evaluations are inconclusive. For example, the Semi-Structured Interviews of the TPP Team yielded many interesting results; however, it did not conclusively answer the question that the evaluation was designed to elicit – What should be the focus of my thesis? Without this answer I could not move forward with my thesis; therefore I was forced to create another evaluation tool. Fortunately, the Post-Interview Questionnaire did provide a clear answer.

Personal Experience as an Evaluator

I am very pleased that I chose to conduct a participatory evaluation. It was extremely helpful to me as an evaluator to have input from staff. No one knows the research needs of the organization better than the TPP Team; thus it was more than appropriate that they determined the direction of my thesis. As an evaluator, I thoroughly enjoyed the interview process. From developing the interview questions, to hearing their individual opinions, and analyzing the results, it was a very enlightening and satisfying process.

While there were many positive aspects to serving as an internal evaluator, it did present some personal challenges. It was difficult to be in a position where I could not respond to the questions that I asked my fellow staff members. I very much wanted to share my opinions on TPP and the direction that my thesis should take; however, that was not the course I had mapped out. During the interview process of the TPP Team, I had to remain as objective as possible, and keep my views to myself. However, I know that my subjectivity still played a factor.

Most of my effort toward remaining objective was focused on the participatory evaluation, while very little consideration went into my subjective choices regarding the literature review. I am sure that my choice of articles, and what I gathered from the literature, was influenced by my existing opinions and viewpoints. This is an unavoidable reality of being human and, in particular, my insider role.

As an insider, I felt increased pressure to create an outstanding thesis. At times, my dedication to The Possible Project's success as a staff member, and as an evaluator, felt overwhelming. As a result, I held myself to very high standards and aimed for perfection. While I do think this improved the quality of my final product, it also slowed my process and added unnecessary amounts of stress.

After the Semi-Structured Interviews and Post-Interview Questionnaires were completed, it was difficult to keep the TPP Team engaged in my thesis process. With the direction of my thesis decided, their active participation was no longer needed. I did, however, keep staff updated on my progress and estimated timeline for completion.

Recommendations

Based on existing research, I have a few recommendations regarding the structure and content of Pathways, as well as a suggestion on TPP's organizational makeup. While I understand that the Pathways component is still evolving, I encourage TPP to keep intact three features that are already included in the draft framework. *First, I feel it is essential that one-on-one counseling remain one of the primary methods of delivery.* While this method is more time and labor intensive than other options, the research shows that it can yield the greatest effects. I feel that the combination of individualized counseling and group workshops, which is also a proven method, will make Pathways highly effective.

Second, I recommend that TPP remain committed to integrating Pathways into all three years of programming. Failure to begin this critical work with students in their sophomore year would be a missed opportunity and decrease the likelihood of affecting participants' post-high school trajectories. The research is clear that the earlier the intervention, the better. In fact, if TPP had the capacity and resources, I would recommend that the program begin with students at an even younger age, ideally in seventh or eighth grade.

Third, TPP should resist the urge to serve more students (the breadth approach), and stay on the path to serve a small number of students very well (the depth approach). As the research showed, this type of work requires as much individualized support as possible to be effective. If TPP keeps to the plan to serve approximately 85 students per year, there will be an extremely low Pathways Advisor to student ratio, making it possible to effectively serve the unique needs and interests of each student.

Currently, the Pathways component does not include an explicit focus on the development of noncognitive skills, – that is, skills, which are not related to cognitive abilities – such as self-discipline, motivation, and adaptability. This oversight should be addressed immediately. While the TPP Team has acknowledged the importance of these skills and even included some of them in the organization's Core Values (teamwork and resilience), Pathways does not yet reflect this belief. The research demonstrates the malleability and predictive power of personality traits, with specific regard to the long-term outcomes that TPP is aiming to affect. Thus, TPP should make a concerted effort to meaningfully and effectively foster students' noncognitive skills. To do so will require more research, but I think it is important enough that TPP should make it a priority.

Considering the scope and significance of Pathways, I think TPP must plan for additional staffing. In time, I believe the Pathways Advisor will require his/her own department with a minimum of two additional staff members. In the Pathways Department, I imagine the majority of the team's time will be dedicated to direct service, followed by time and resources dedicated toward research. The field of higher education access and success is rapidly changing. It is imperative that TPP remain abreast of the latest developments and trends to ensure the program provides students with the best services possible.

Concluding Remarks

The defining characteristic of my thesis is that it was a utilization-focused evaluation. Knowing that the results of my work would be utilized by TPP made the entire experience and process highly meaningful and motivating. Even before completing my thesis, I was able to apply my research toward drafting the Pathways Framework, as well as crafting the job description for the Pathways Advisor position. I look forward to seeing how else the results or process of my thesis may be utilized.

Overall, I believe the process that I undertook was useful for me as a student and TPP staff member. As a student, I learned a great deal through the discipline, structure, and rigor demanded by a graduate-level thesis. I enjoyed the balance that my thesis offered between evaluation and research experience. While I have no plans to become a professional evaluator or researcher, the comfort and familiarity that I gained with each process will be helpful with whichever career trajectory I pursue, as all well-run organizations involve some degree of evaluation and research.

As a non-profit worker, this process greatly amplified my understanding of the importance of evidence-based programming. Furthermore, I feel confident that I could guide TPP's efforts to continue this work with the remaining three components of the program. In addition, this project increased my support for the Pathways component. The research that I conducted solidified the importance of this work, particularly for the population that TPP is targeting. Lastly, due to the knowledge I gained through the research process, I have a sharper vision of the type of candidate that I believe would be appropriate for the Pathways Advisor role, which has been quite helpful as, at present, I am assisting to screen and interview applicants for the position.

While TPP still has a long road ahead to develop a solid proof of concept, I am confident that the organization will get there. The TPP Team is dedicated to putting forth the effort and time required to do so, and that is half the battle. This dedication to research and continuous improvement will serve TPP well, especially as the organization looks to expand and positively impact the lives of hundreds, and even thousands, of youth across the country.

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Appendices

Appendix A

Proposed Logic Model

Initial (Years 0-2: Levels I-IV)			Intermediate (Year 3: Levels V-VI)			Long-Term (Years 5-10)		
ACTIVITIES	OUTPUTS	OUTCOMES	ACTIVITIES	OUTPUTS	OUTCOMES	ACTIVITIES	OUTPUTS	OUTCOMES
ENTREPRENEURSHIP CURRICULUM (40 hrs) **- Foundational business lessons** ▪ Participate in non-traditional learning sessions ▪ Engage with volunteer Business Advisors ▪ Attend field trips to local businesses ▪ Hear from guest speakers (entrepreneurs)	□ # of curriculum hours completed □ # of pitches completed □ # of drop-in hours attended	✓ Acquired and progressed **entrepreneurial business knowledge & skills** ✓ Acquired and improved **21st century skills** ✓ Acquired and increased **Positive Youth Development Competencies** ✓ Gained awareness of potential **post-secondary education and career paths**			✓ Independently applied **entrepreneurial business knowledge & skills** ✓ Independently applied **21st century skills** ✓ Increased development of **Positive Youth Development Competencies** ✓ Demonstrated ability to independently investigate and choose potential **post-secondary education and career paths** ✓ **Graduated high school** ✓ **Enrolled in post-secondary education** and/or professional certification program[1]			✓ Operate with an **entrepreneurial mindset** ✓ Expand **professional connections** ✓ Achieve **alumni status**, with ability to serve as mentor to new youth ✓ **Completed post-secondary education** and/or professional certification program ✓ Increased awareness of **professional resources** ✓ **Gainfully employed**[2] (10-15 yrs) ✓ **Achieved self-sufficiency** (10-15 yrs)
BUSINESS OPERATIONS (125 hrs) **- Student Ventures** ▪ Conceptualize, plan, pitch (x4) ▪ Launch and operate ▪ Attend up to 240 Biz Hrs *(optional)* **- In-House Businesses** ▪ "Work" for CMP or WSP	□ # of hrs operating student venture □ # of hrs "worked" □ # of Pitches Completed □ # of drop-in hrs attended		**BUSINESS OPERATIONS (30 hrs)** **- Student Ventures** ▪ Operate business ▪ Attend up to 120 Biz Hrs *(optional)* **- In-House Businesses** ▪ "Work" for CMP or WSP	□ # of hrs operated student venture □ # of hrs "worked" □ # of drop-in hrs attended		**ALUMNI NETWORK** ▪ Connect via alum E-community ▪ Attend Annual Alumni Event	□ In e-network □ Attend Annual Alumni Event	
PATHWAYS ADVISING (15 hrs) **- Education/career counseling** ▪ Meet with Pathways Advisor ▪ Complete Pathways Plan	□ # of hrs spent with Pathways Advisor □ Completion of Pathways Plan		**PATHWAYS ADVISING (30 hrs)** **- Education/career counseling** ▪ Update Pathways Plan ▪ Investigate and apply to 5+ post-secondary programs ▪ Attend workshops re: financing higher education	□ # of hrs spent in Pathways □ # of post-secondary acceptances □ Enrolled in post-sec. edu/training		**PATHWAYS** **- Career Check-In** ▪ Partake in bi-annual evaluation conducted by TPP staff via phone or email ▪ Receive external professional resources	□ Respond to evaluation □ Complete post-sec education	

[1] Post-secondary education/certification program options: 1) Bachelor's degree; 2) Associate's degree; 3) High-skill professional certification. In addition, having an entrepreneurial venture is a great viable outcome; however, it is not weighted as heavily as the desired educational outcomes.

[2] As defined by the Obama Administration, gainful employment is achieved if/when student loans can be repaid without causing financial hardship, i.e. does not exceed 30% of discretionary income or does not exceed 12% of annual earnings.

Last updated: 5.18.12

Appendix B

INTRODUCTORY SCRIPT FOR SEMI-STRUCTURED INTERVIEW

INTRODUCTION (TO BE EMAILED TO STAFF PRIOR TO INTERVIEW)

Thank you for agreeing to take part in this brief interview. Before we sit down for the interview, I wanted to provide you with a bit more information.

As you already know, I have decided to make The Possible Project (TPP) the subject of my Masters Thesis. My thesis will be framed as a utilization-focused evaluation, which is defined as an evaluation "done for and with specific intended primary users for specific, intended uses." In this case, the "primary users" are you and the rest of the TPP staff. While I am certain on who the primary users are, I am not certain on the "specific, intended uses." This is where all of you come in.

In the spirit of a "participatory evaluation" I would like you, the staff of TPP, to choose the focus of my thesis. I believe that all of you are in the best position to know the research and evaluation needs of TPP. Furthermore, given that this is a utilization-focused evaluation, the entire purpose of my thesis project is that the TPP staff *utilize* the results. Thus, it only makes sense that all of you weigh in and choose the focus.

Before I begin the interview, I want to provide a little more information on the current evaluation options for TPP. Given that TPP is in such an early stage of its evolution, the program is not yet ready for an outcome-based evaluation. At this time, we cannot assess TPP's long-term impact, such as, "Are our students achieving personal and professional success?" What we can examine, right now, are questions related to TPP's process.

By process, I mean that we can question and investigate how the program is designed. I recommend that we begin this investigation by looking at one program component at a time. Eventually, this will allow us to confidently answer TPP stakeholders, such as future funders, who ask, "What is the rationale behind TPP's program?" In other words, my thesis will mark the start of developing an evidence-based rationale for TPP, which is crucial to our continued existence and future success.

I will send you a follow-up email with the meeting invite for our 10-minute interview.

Staff Name: ____________ **Time at start of interview: _______**

In the questions that follow I want to find out where you feel we should begin this process. Again, your input will have a direct effect on the direction of my thesis. Thank you so much in advance for your participation.

Semi-Structured Interview

Part 1: Confidence Level

The first few of questions have to do with your level of confidence in TPP's program. There are no right or wrong answers. I am only seeking to get your honest opinion and assessment of the components of the program.

Which components of our program do you feel the *most* secure about? Why? (By "secure", I mean confident that the content and methods utilized are effective and in line with evidence-based practices.)

Which components of our program do you feel the *least* secure about? Why?

Now I am going to list five components that I think are core to TPP's programming. I would like you to rank how secure or confident you feel about the current operations (or operational model, for those components that have yet to be launched) of each of these program components. There are five rating options: Very Insecure, Somewhat Insecure, Neutral, Somewhat Secure, or Very Secure.

Program Component	**Rating**				
Business Curriculum	❑ Very Insecure	❑ Somewhat Insecure	❑ Neutral	❑ Somewhat Secure	❑ Very Secure
Youth Employment and Training	❑ Very Insecure	❑ Somewhat Insecure	❑ Neutral	❑ Somewhat Secure	❑ Very Secure
Guidance Counseling	❑ Very Insecure	❑ Somewhat Insecure	❑ Neutral	❑ Somewhat Secure	❑ Very Secure
Business Advisors/ Mentors	❑ Very Insecure	❑ Somewhat Insecure	❑ Neutral	❑ Somewhat Secure	❑ Very Secure
Incentives	❑ Very Insecure	❑ Somewhat Insecure	❑ Neutral	❑ Somewhat Secure	❑ Very Secure

Are there any additional components that you consider part of TPP's core programming? If yes, please use the same rating scale to describe your degree of confidence in these additional program component(s).

Program Component	**Rating**				
___________ ___________	❑ Very Insecure	❑ Somewhat Insecure	❑ Neutral	❑ Somewhat Secure	❑ Very Secure
___________ ___________	❑ Very Insecure	❑ Somewhat Insecure	❑ Neutral	❑ Somewhat Secure	❑ Very Secure
___________ ___________	❑ Very Insecure	❑ Somewhat Insecure	❑ Neutral	❑ Somewhat Secure	❑ Very Secure

SEMI-STRUCTURED INTERVIEW
PART 2: RESEARCH NEEDS

In this next set of questions I would like to learn where you feel TPP's research needs lie, and how you would prioritize them.

Which components of our program do you feel we should research more? Why?

Of the above-listed program components that you believe require additional research, how you would prioritize them? With 1 being the top priority for immediate research, 2 being the second most immediate priority, and so on.

1. ________________________
2. ________________________
3. ________________________
4. ________________________
5. ________________________
6. ________________________
7. ________________________
8. ________________________

Top Priority

Least Priority

If you had to pick one program component to be the focus of my thesis, which would you choose? Why? (Please note that the projected date of completion for my thesis is early fall 2012.)

That concludes all of the questions that I have. Do you have any questions for me?

Is there anything else that you would like to share?

Thank you again for your input. After I assess the input from every staff member I will update all of you at our next weekly Team Meeting on the chosen topic for my thesis. Thereafter I will provide you all with periodic updates.

Appendix C

Tufts University
Office of the Vice Provost
Institutional Review Board

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Social, Behavioral & Educational Research IRB

PROTOCOL APPLICATION FOR EXEMPT STATUS

This form must be typed. Please submit the Protocol Cover Sheet with your Protocol Application for Exempt Status. Professional and complete applications advance the review process.

Research must be "minimal risk" in order to qualify for exempt status. Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during performance of routine or psychological examinations or tests.

I. Check the box in the appropriate exempt status category:	
☐	(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as: **(i)** Research on regular and special education instructional strategies, ***or*** **(ii)** Research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
☒	(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation or public behavior, ***unless:*** **(i)** Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; ***and*** **(ii)** Any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employment, or reputation. **Note: This exempt status category, for research involving survey or interview procedures or observation of public behavior, does not apply to research with children, Subpart D, except for research involving observations of public behavior when the investigator(s) do not participate in the activities being observed.**
☐	(3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if: **(i)** The human subjects are elected or appointed public officials or candidates for public office; ***or*** **(ii)** Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
☐	(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available ***or*** if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.
☐	(5) Research and demonstration projects which are conducted by or subject to the approval of Department or Agency heads, and which are designed to study, evaluate, or otherwise examine: **(i)** Public benefit or service programs; ***or*** **(ii)** Procedures for obtaining benefits or services under those programs; ***or*** **(iii)** Possible changes in or alternatives to those programs or procedures; ***or*** **(iv)** Possible changes in methods or levels of payment for benefits or services under those programs.
☐	(6) Taste and food quality evaluation and consumer acceptance studies, **(i)** If wholesome foods without additives are consumed ***or*** **(ii)** If a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental containment at or below the level found to be safe, by the Food and Drug Administration or approved by the EPA of the Food Safety and Inspection Service of the U.S. Department of Agriculture.

II. Justifications

A. Provide a justification for the exemption category you have selected:

I will be conducting a brief semi-structured interview of each of the five staff members of a non-profit organization, The Possible Project. The interviews will be kept confidential. The data will be reported in aggregate form, and every attempt will be made to de-identify particular comments or suggestions. In addition, any disclosure of the human subjects' responses outside the research would not place the sujbects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employment, or reputation.

B. Explain how this research is minimal risk:

This research is minimal risk in that the questions asked all relate to the research needs of the human subjects' place of employment, The Possible Project (TPP). As TPP is a relatively new non-profit organization, the fact that additional research must be conducted is widely accepted and openly discussed among the staff. I know this because I am one of the six staff members of TPP. The types of research that must be conducted all relate to improving the efficacy and rationale of TPP's core program components. In the interviews of my colleagues I will be asking them to prioritize TPP's research needs. Based on the staff members' responses I will

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then choose one of TPP's core program components to investigate further. There is no right or wrong answer regarding TPP's research needs, and the priorities therein. The probability and magnitude of harm or discomfort anticipated in the research are no greater in and of themselves than those ordinarily encountered in daily life or during performance of routine or psychological examinations or tests.

III. Research Description

A. Provide a comprehensive description of the research that includes background, objectives, subject population, recruitment process, consent process, and description of how the research will be conducted (at least a ½ page description). Be sure to also attach all questionnaires, interview protocols, recruitment documents, etc. that will be used.

OBJECTIVES
My thesis represents a model for undertaking utilization-focused evaluation for the non-profit organization where I am employed, The Possible Project (TPP). The objectives of this current effort are to identify the core program component that the staff is most interested in validating (using empirical evidence), and then to demonstrate how one might undertake such a validation process.

BACKGROUND
A utilization-focused evaluation is “done for and with specific intended primary users for specific, intended uses.” In the case of my thesis, the intended primary users are The Possible Project’s staff members (“The TPP Team”). The intended use of the evaluation is to begin building TPP’s evidence-based rationale, tackling one program component at a time, reflecting on the new information and revising the component as appropriate.

TPP is a multi-faceted program with five core components: 1) business curriculum; 2) work experience; 3) guidance counseling; 4) exposure to business-sector role models and advisors; and 5) incentives. Rather than skimming the surface of evidence to support each component, I have decided to “go deep” for my thesis, seeking the evidence base, or lack thereof, of just one of TPP’s five core components. In the spirit of a participatory evaluation, the TPP Team will choose the program component that will be the focus of my thesis. My assumption is that they will choose one of the above-listed core components; however, I am open to other suggestions by the TPP Team. I will elicit their feedback through a semi-structured interview and then begin my research and analysis on the chosen program component.

SUBJECT POPULATION, RECRUITMENT, and CONSENT PROCESS
In the case of my thesis, the subject population is my five fellow staff members at TPP. All of TPP’s staff members, excluding myself, will be recruited for this study. I will explicitly request consent prior to conducting the interview. Participation in the interview is completely voluntary, and this will be made clear to each of the human subjects. Anyone who does not wish to take part in the study will be able to choose to not proceed with the interview.

DESCRIPTION OF HOW RESEARCH WILL BE CONDUCTED
The staff members who provide consent will be interviewed individually. I will utilize a semi-structured interview format. Each interview should take no longer than 10 – 15 minutes and will take place in one of the private meeting rooms at the TPP office. The most important interview questions are listed below, and the full interview is attached.
- o Which components of our program do you feel the most secure about? Why?
- o Which components of our program do you feel the least secure about? Why?
- o For which program component is it most important to establish the evidentiary base, to the extent that there is one?

B. What is the age range of the participants?

22-55

C. Does this research involve prisoners, fetuses, pregnant women or human in vitro fertilization? ☐ Yes ☒ No
If yes, please contact the IRB Administrator as this research may not qualify for exemption.

IV. Confidentiality

A. Specify how confidentiality will be maintained. If confidentiality is not maintained, explain the reason for identifying participants.

To the extent possible, confidentiality will be maintained by not naming which human subject gave which interview answers. It is not important to my study to identify who said what, thus that information will remain confidential. I will not use names to identify my human subjects, but rather will code each of the human subjects with a number.

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PROTOCOL APPLICATION FOR EXEMPT STATUS

This form must be typed. Please submit the Protocol Cover Sheet with your Protocol Application for Exempt Status. Professional and complete applications advance the review process.

B. Where will the data be stored and who will have access to the data? *Data must be stored in a secure location.*

Data will be stored on my personal laptop in a password protected file. In addition, as a backup protection, I will save the files to my personal Google Documents, making the document private and viewable only to me. Individual transcripts will be de-identified; a link file code will be securely maintained.

C. Will identifiers be used to code data? (Identifiers are, for example, name, birth date, social security number, address, etc.) ☐ Yes ☒ No

If yes, will identifiers be stored with or separate from the data?

D. Will you be accessing health records? ☐ Yes ☒ No

If yes, complete the "HIPAA Compliance" form (http://www.tufts.edu/central/research/IRB/Forms.htm) S*end any agreements regarding the use of PHI (protected health information) to the IRB office.*

V. Potential Benefits

A. Are there any potential direct benefits to participants that would result from participation in this research? ☒ Yes ☐ No

If yes, please describe the potential benefit to participants. Compensation is not a benefit.

This study is meant to provide data to improve perfomrance at the organization where the human subjects work. The benefits are that the subjects may then work for a more effective organization.

B. Are there any potential benefits to society that would result from this research? ☒ Yes ☐ No

If yes, please describe the potential benefits to society. Compensation is not a benefit.

My research may create a usable framework for other non-profit organizations to follow when seeking to create an evidence-based rationale.

VI. Conflict of Interest

A. Do you or will you, your spouse or dependent children, or any investigator participating in this study have, or anticipate having, any income from, or financial interest in, the sponsor of this research protocol or supporting organization (financial interest includes, but is not limited to, consulting, speaking, or other fees; honoraria; gifts; licensing revenues; or equity interests/stock options of an annual or fair market value of $10,000 or more)? ☐ Yes ☒ No

If yes, please specify the nature and extent of involvement.

B. Do you or will you, your spouse or dependent children, or any investigator participating in this study have, or anticipate having, any income from, or financial interest in, a company that owns or licenses the technology being studied (technology includes but is not limited to pharmaceuticals, procedures, or devices)? *Income and financial interest is defined above* ☐ Yes ☒ No

If yes, please specify the nature and extent of involvement.

C. For those projects funded by NIH, NSF, or commercial entities, do you have a current, up-to-date Conflict of Interest Disclosure on file with the Office of the Vice Provost that describes this financial relationship? ☐ Yes ☐ No ☒ Not Applicable

VII. Further Information

A. To your knowledge has this research study previously been reviewed by any IRB? ☐ Yes ☒ No

If yes, which IRB reviewed the study? ....

When was it reviewed? .... *Protocol #:* ....

What was the outcome?

B. Please attach any additional relevant information that will be useful to the IRB committee when reviewing your protocol.

Thesis or dissertation proposals may be helpful for the committee.

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PROTOCOL APPLICATION FOR EXEMPT STATUS

This form must be typed. Please submit the Protocol Cover Sheet with your Protocol Application for Exempt Status. Professional and complete applications advance the review process.

Please Note: Protocols determined not to be exempt will require a resubmission of a full protocol Application. The application can be found at: http://www.tufts.edu/central/research/IRB/Forms.htm Investigators will be notified as soon as possible if this is required.

Tufts UNIVERSITY

Appendix D

OFFICE OF THE VICE PROVOST

Social, Behavioral, and Educational Research
Institutional Review Board
FWA00002063

Title: The Possible Project: Using Evaluation to Build an Evidence-Based Rationale

April 6, 2012 | Notice of Action

IRB Study # 1204007 | Status: EXEMPT

PI: Caitlin Dolan
Faculty Advisor: Francine Jacobs
Review Date: 4/6/2012

The above referenced study has been granted the status of Exempt Category 2 as defined in 45 CFR 46.101 (b). For details please visit the Office for Human Research Protections (OHRP) website at: http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.html#46.101(b)

- The Exempt Status does not relieve the investigator of any responsibilities relating to the research participants. Research should be conducted in accordance with the ethical principles, (i) Respect for Persons, (ii) Beneficence, and (iii) Justice, as outlined in the Belmont Report.
- Any changes to the protocol or study materials that might affect the Exempt Status must be referred to the Office of the IRB for guidance. Depending on the changes, you may be required to apply for either expedited or full review.

IRB Administrative Representative Initials: LNS

Appendix E

Staff Interviews:
CODING KEY

Part I: Confidence Level

Q1. How well does my categorization of TPP's core components sit with you? Do you have any additions or modifications?

1) The first 4 are correct, the last one – incentives – is not a program component per se. It is more a method that we use.
2) Work experience should be divided into two sub-categories: a. student ventures; and b. in-house business.
3) Add "business hours" as another program component.

Q2. Which components of our program do you feel the most secure about? Why?

1) Business Curriculum
2) Incentives
3) Business Advisors
4) Business Hours
5) Student Ventures

Q3. Which components of our program do you feel the least secure about? Why?

1) In-house business
2) Pathways Advising

Part I: Confidence Level (Cont'd)

Rate each component based on how they are currently *designed*.

Q4. Business Curriculum
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q5. Work Experience
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q6. Pathways Advising
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q7. Business Advisors/Mentors
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q8. Incentives
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q9. Student Ventures
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q10. In-House Business
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q10B. Business Hours
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Part I: Confidence Level (Cont'd)

Q11-Q16B. Rate each component based on how they are currently *implemented*.

Q11. Business Curriculum
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q12. Work Experience
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q13. Business Advisors/Mentors
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q14. Incentives
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q15. Student Ventures
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q16. In-House Business
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

Q16B. Business Hours
1) Very Insecure
2) Somewhat Insecure
3) Neutral
4) Somewhat Secure
5) Very Secure

PART I: RESEARCH NEEDS

Q1. Which components of our program do you feel we should research more? Why?

1) Business Curriculum
2) Work Experience
3) Pathways Advising
4) Business Advisors
5) Incentives
6) In-House Businesses
7) Business Hours

Q2A-Q2B. Of the above-listed program components that you believe require additional research, how you would prioritize them? Please select and rank your top two choices, with 1 being the top priority and 2 being the second greatest priority.

Q2A. Which is your top priority?

1) Business Curriculum
2) Student Ventures
3) Pathways Advising
4) Business Advisors
5) Incentives
6) In-House Businesses
7) Business Hours

Q2B. Which is your second greatest priority?

1) Business Curriculum
2) Student Ventures
3) Pathways Advising
4) Business Advisors
5) Incentives
6) In-House Businesses
7) Business Hours

Q3. In your opinion, what is the most helpful way for me to share the results of both this survey and my thesis?

1) Meeting
2) Written – full thesis
3) Written – Executive summary
4) Written – 1-pager of interview themes
5) Written – summary of concrete recommendations

Q4. That concludes all of the questions that I have. Do you have any questions for me?

1) No
2) Yes
    a. What kind of format will this all take?
    b. What is the timeline for completion?
    c. How do you expect to use the results of your thesis research?

Q5. Is there anything else that you would like to share?

1) No
2) Yes
    a. "At the end of the interviews I still feel that you need to pick a topic that makes sense for your research. For example, I think it would be *really* tough to research the in-house businesses."
    b. "I'm really excited to see the results of your work."
    c. "I think you should ask these same questions of Board members, particularly those on the Program Committee. I think it would be tragic to leave them out of this process. I feel like this [thesis] is a huge opportunity for us and I want it to be acknowledged, appreciated, and used. By involving committee members, I think you'd be doing just that."
    d. "I wonder how determined the organization is in using research-based evidence in order to drive decision-making. I see a huge split right now."
    e. "I think our biggest [research] need right now is Pathways. [TPP's] credibility starts to take a hit as time goes on and it's still not up and running. Plus, we based all of this on *one* report. We don't have the internal capacity and/or expertise in this area at all. Everything is way too up in the air from the level of this staff position, reporting structure, salary, and job description. This is ripe for a very awkward beginning for [the Pathways Advisor] because we don't even have Level IV starting until Spring 2013. It's not being taken quite seriously enough. If entrepreneurship is just the "vehicle" and Pathways is the real deal then how can so few resource be dedicated to this?! Imagine if we said that the whole point of our program is to help kids start businesses and we have one person on staff dedicated to that who meets with each kid once a month."

Appendix F

PART I: Confidence Level - ANSWERS

ID #	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q10B	Q11	Q12	Q13	Q14	Q15	Q16	Q16B
One	1, 2	1, 5	1, 2	5	4	4	3	4	5	1	n/a	4	3	3	3	4	1	n/a
Two	2	1, 2	1	4	2	4	3	5	4	2	n/a	4	2	3	5	4	2	n/a
Three	1	1	1	4	2	4	3	3	4	3	n/a	4	2	2	3	4	1	n/a
Four	1, 2, 3	1, 3	1, 2	4	4	1	4	4	4	2	5	2	2	2	4	4	1	3
Five	1, 2, 3	1, 4	1, 2	4	4	2	3	4	5	3	4	4	4	2	4	5	3	4

PART II: Research Needs - ANSWERS

ID #	Q1	Q2A	Q2B	Q3	Q4	Q5
One	2, 3, 4, 5, 6	5	2	1, 2, 4, 5	1	2a
Two	1, 3, 6	1	6	1	2a, 2b	2c
Three	3	3	1	2, 3, 4	2c	2b
Four	1, 4, 6, 7	7	5	3, 5	1	2d
Five	1, 3, 5	3	5	1, 5	1	2e

Appendix G

Post-Interview Questionnaire

Thanks for spending time with me, a few weeks ago, to try to identify the direction for my thesis. Wouldn't you know it, but there was no real consensus on how I should proceed, though a few program components were identified more frequently than the others. So I'm coming back to each of you with a modified, narrower list of the program components from which you can choose; I will tabulate this information and let you know which one is chosen. Sound good?

1. So, the three options are **incentives**, **pathways**, and the **in-house businesses**. How would you rank these in order of priority/importance for my work (building TPP's evidence-based rationale)? Please rank the options, with one being your top choice, in the space provided below.

   1) ________________________

   2) ________________________

   3) ________________________

2. Please just make a quick note about why you think your first choice is the most appropriate program component for me to pursue.

Thanks for your input and continuing support.

Appendix H

Part I: Confidence Level - ANALYSIS *(Frequency Tables)*

Q1. How well does my categorization of TPP's program components sit with you? Any modifications or additions?

CODE	RESPONSE	FREQUENCY	PERCENT
1	Incentives is a method, not a program component.	4	40%
2	Work experience should have 2 sub-categories: a. student ventures; b. in-house business	4	40%
3	Add "Business Hours" as another component.	2	20%
	TOTAL	10	100%

All staff members had some suggestions on components to add or modify. Each suggestion was voiced independently by at least two staff members.

Q2. Which components of our program do you feel the *most* secure about? Why?

CODE	RESPONSE	FREQUENCY	PERCENT
1	Business Curriculum	5	55%
2	Incentives	1	11%
3	Business Advisors	1	11%
4	Business Hours	1	11%
5	Student Ventures	1	11%
	TOTAL	9	100%

All staff members expressed feeling the *most* secure about the business curriculum. Every other component that was mentioned had the support of just one staff member.

Q3. Which components of our program do you feel the *least* secure about? Why?

CODE	RESPONSE	FREQUENCY	PERCENT
1	In-House Business	5	63%
2	Pathways Advising	3	37%
	TOTAL	8	100%

All staff reported feeling the *least* secure about one of just two components (1. in-house businesses; 2. pathways) and many staff mentioned both.

RATE EACH COMPONENT BASED ON HOW THEY ARE CURRENTLY *DESIGNED.*

Q4. Business Curriculum *(design)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	0	0%
3	Neutral	0	0%
4	Somewhat Secure	4	80%
5	Very Secure	1	20%
	TOTAL	5	100%

All staff members felt secure about the design of the business curriculum.

Q5. Work Experience *(design)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	2	40%
3	Neutral	0	0%
4	Somewhat Secure	3	60%
5	Very Secure	0	0%
	TOTAL	5	100%

Staff members were **split** on how secure they felt about the design of work experience, with 40% (2 staff) reporting they are somewhat insecure, and 60% (3 staff) reporting they feel somewhat secure.

Q6. Pathways Advising *(design)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	1	20%
2	Somewhat Insecure	1	20%
3	Neutral	0	0%
4	Somewhat Secure	3	60%
5	Very Secure	0	0%
	TOTAL	5	100%

Staff members were **split** on how secure they felt about the design of pathways advising, with 40% (2 staff) reporting they feeling insecure, and 60% (3 staff) reporting that they feel somewhat secure.

Q7. Business Advisors *(design)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	0	0%
3	Neutral	4	80%
4	Somewhat Secure	1	20%
5	Very Secure	0	0%
	TOTAL	5	100%

The **majority** of staff (80%; 4 staff) reporting that they feel neutral about the design of business advisors, while just 1 staff member reporting feeling somewhat secure.

Q8. Incentives *(design)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	0	0%
3	Neutral	1	20%
4	Somewhat Secure	3	60%
5	Very Secure	1	20%
	TOTAL	5	100%

The **majority** of staff reporting feeling secure about the design of incentives, while just one staff member responded with neutral.

Q9. Student Ventures *(design)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	0	0%
3	Neutral	0	0%
4	Somewhat Secure	3	60%
5	Very Secure	2	40%
	TOTAL	5	100%

All staff members (100%) reported feeling secure about the design of student ventures.

Q10. In-House Businesses *(design)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	1	20%
2	Somewhat Insecure	2	40%
3	Neutral	2	40%
4	Somewhat Secure	0	0%
5	Very Secure	0	0%
	TOTAL	5	100%

All staff reported feeling neutral or insecure about the design of the in-house businesses.

Q10B. Business Hours *(design)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	0	0%
3	Neutral	0	0%
4	Somewhat Secure	1	50%
5	Very Secure	1	50%
	TOTAL	2	100%

The two staff members who added "business hours" as a component, **both** reported feeling secure about its design.

RATE EACH COMPONENT BASED ON HOW THEY ARE CURRENTLY *IMPLEMENTED.*

Q11. Business Curriculum *(implementation)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	1	20%
3	Neutral	0	0%
4	Somewhat Secure	4	80%
5	Very Secure	0	0%
	TOTAL	5	100%

The **majority** of staff (80%; 4 staff) reporting feeling somewhat secure about the implementation of the business curriculum. One staff member reported feeling somewhat insecure.

Q12. Work Experience *(implementation)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	3	60%
3	Neutral	1	20%
4	Somewhat Secure	1	20%
5	Very Secure	0	0%
	TOTAL	5	100%

Staff results were **mixed** on the implementation of work experience. Three staff (60%) reported feeling somewhat insecure, while one staff (20%) responded with neutral, and the remaining staff member (20%) reported feeling somewhat secure.

Q13. Business Advisors *(implementation)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	3	60%
3	Neutral	2	40%
4	Somewhat Secure	0	0%
5	Very Secure	0	0%
	TOTAL	5	100%

Most staff (3; 60%) reported feeling somewhat insecure about the implementation of the business adivsors, while **two staff** (40%) stated they were neutral.

Q14. Incentives *(implementation)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	0	0%
3	Neutral	2	40%
4	Somewhat Secure	2	40%
5	Very Secure	1	20%
	TOTAL	5	100%

All staff reported feeling secure or netural on the implementation of incentives.

Q15. Student Ventures *(implementation)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	0	0%
3	Neutral	0	0%
4	Somewhat Secure	4	80%
5	Very Secure	1	20%
	TOTAL	5	100%

All staff stated they felt secure about the implementation of student ventures.

Q16. In-House Businesses *(implementation)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	3	60%
2	Somewhat Insecure	1	20%
3	Neutral	1	20%
4	Somewhat Secure	0	0%
5	Very Secure	0	0%
	TOTAL	5	100%

All staff were neutral or insecure about the implementation of the in-house businesses.

Q16B. Business Hours *(implementation)*

CODE	RESPONSE	FREQUENCY	PERCENT
1	Very Insecure	0	0%
2	Somewhat Insecure	0	0%
3	Neutral	1	50%
4	Somewhat Secure	1	50%
5	Very Secure	0	0%
	TOTAL	2	100%

The **two** staff members who added "business hours" as a component **slightly differed** on how they felt about the implementation. One stated feeling somewhat secure, while the other responded feeling neutral.

Part II: Research Needs - ANALYSIS *(Frequency Tables & Summary Notes)*

Q1. Which components of our program do you feel we should research more?

CODE	RESPONSE	FREQUENCY	PERCENT
1	Business Curriculum	3	19%
2	Student Ventures	1	6%
3	Pathways Advising	4	25%
4	Business Advisors	2	12%
5	Incentives	2	12%
6	In-house Businesses	3	19%
7	Business Hours	1	6%
	TOTAL	16	100%

Each component of the program was suggested at least once. The component that received the **most votes** was Pathways Advising, with 4 votes or 25% of the total.

Q2A. Of the above-listed program components that you believe require additional research, how would you prioritize them? Which is your #1 priority?

CODE	RESPONSE	FREQUENCY	PERCENT
1	Business Curriculum	1	20%
2	Student Ventures	0	0%
3	Pathways Advising	2	40%
4	Business Advisors	0	0%
5	Incentives	1	20%
6	In-house Businesses	0	0%
7	Business Hours	1	20%
	TOTAL	5	100%

Four components were listed as the #1 priority - Business Curriculum, Pathways, Incentives, and Business Hours. Pathways received the **most votes**, with 2 votes or 40% of the total.

Q2B. Of the above-listed program components that you believe require additional research, how would you prioritize them? Which is your #2 priority?

CODE	RESPONSE	FREQUENCY	PERCENT
1	Business Curriculum	1	20%
2	Student Ventures	1	20%
3	Pathways Advising	0	0%
4	Business Advisors	0	0%
5	Incentives	2	40%
6	In-house Businesses	1	20%
7	Business Hours	0	0%
	TOTAL	5	100%

Four components were listed as the #2 priority (two of which were repeats from above) - Business Curriculum, Work Experience, Incentives, and In-house Businesses. Incentives received the **most votes**, with 2 votes or 40% of the total.

Q3. In your opinion, what is the most helpful way for me to share the results of both this survey and my thesis?

CODE	RESPONSE	FREQUENCY	PERCENT
1	Meeting	3	25%
2	Written - full thesis	2	17%
3	Written - Executive Summary	2	17%
4	Written - 1-pager of interview themes	2	17%
5	Written - summary of recommendations	3	25%
	TOTAL	12	100%

which received at least 2 votes or 17% of the total. The **two top suggestions** were Meeting and Written Summary of Recommendations, each receiving 3 votes

Q4. Do you have any questions for me?

CODE	RESPONSE	FREQUENCY	PERCENT
1	No	3	50%
2a	Yes - what is the format your thesis will take?	1	17%
2b	Yes - what is the timeline for your thesis?	1	17%
2c	Yes - do you expect to use the results of thesis research?	1	17%
	TOTAL	6	100%

Three out of five staff did not have questions. Of the two staff who did have questions, they were direct and easy to answer on the spot.

Q5. Is there anything else you would like to share?

Code	Response	Frequency	Percent
1	No	0	0%
2a	Yes - “At the end of the interviews I still feel that you need to pick a topic that makes sense for your research. For example, I think it would be really tough to research the in-house businesses.”	1	20%
2b	Yes - “I’m really excited to see the results of your work.”	1	20%
2c	Yes - “I think you should ask these same questions of Board members, particularly those on the Program Committee. I think it would be tragic to leave them out of this process. I feel like this [thesis] is a huge opportunity for us and I want it to be acknowledged, appreciated, and used. By involving committee members, I think you’d be doing just that.”	1	20%
2d	Yes - “I wonder how determined the organization is in using research-based evidence in order to drive decision-making. I see a huge split right now.”	1	20%
2e	Yes - “I think our biggest [research] need right now is Pathways. Your credibility starts to take a hit as time goes on and it’s still not up and running. Plus, we based all of this on one report. We don’t have the internal capacity and/or expertise in this area at all. Everything is way to up in the air from the level of this staff position, reporting structure, salary, and job description..."	1	20%
	TOTAL	5	100%

All of the staff had **unique things to share.** Four out of the five respondents commented directly on my thesis, while one respondent used this opportunity to question the organization's commitment to research-based evidence.

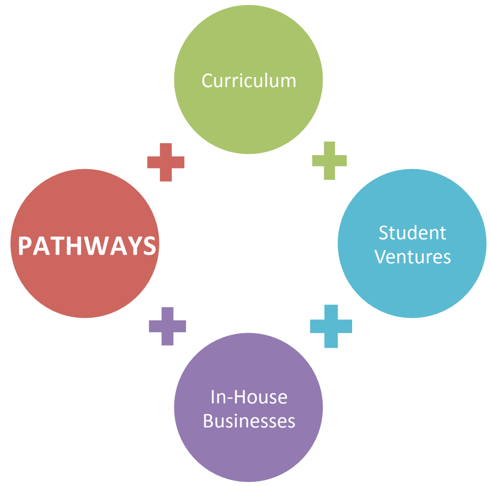
Appendix I

Last Updated: 2.5.13

PATHWAYS ADVISING:
DRAFT Framework

OVERVIEW

Pathways Advising is intended to help students envision their **future possibilities** and create a **roadmap** for getting there. TPP's aim is to complement and enhance the educational and career counseling already being provided by the schools.



THE NEED

In the past three decades, all of the net job growth has come from positions that require some level of post-secondary education, and this trend shows no signs of slowing.[1] Not only are job opportunities limited for workers with a high school degree or less, their potential earnings are extremely low. In 2009, **the average annual income of a college graduate was nearly $20,000 more than that of a high school graduate**.[2]

A 2006 survey of hundreds of employers concluded that young workers, particularly those with only a high school degree, were deficient in key areas, including oral and written communication, professionalism, and critical thinking.[3] The message is clear – **higher education is a must for workers and employers alike**.

Across the country, schools are deficient in school-to-career resources. Nationally, the **ratio of students to school counselors is 459:1**.[4]

This program component is critical because it is filling a service gap currently plaguing public schools. At TPP the student to counselor ratio would be **85:1**. In addition to the Pathways Advisor, all TPP staff, to some extent, will assist students in imagining and planning their future pathways.

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[1] Harvard Graduate School of Education, "Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century," February 2010.
[2] U.S. Department of Education, 2011.
[3] The Conference Board, Partnership for 21st Century Skills, Corporate Voices for Working Families, and Society for HR Management, "Are They Really Ready to Work." September 2006.
[4] Rates cited for the 2009-2010 school year by the American School Counselor Association, http://www.schoolcounselor.org/content.asp?contentid=658.

ELEMENTS

1) Academic Performance

- Discuss course schedule
- Review grades
- Compare current GPA to higher education options
- As needed, help connect students to tutoring resources

2) Higher Education

- Overview of 1, 2, and 4 year options
- Arrange field trips to various schools
- Guidance on financial planning[5]
- Assistance with applications and meeting deadlines

3) Career Planning

- Map out career options with required education level and appropriate programs
- Educate on job market trends, gaps, and opportunities

SCHEDULE

Pathways will be integrated into **all six levels** of programming, with the dedicated hours increasing as students level up.

Grade	Level	Pathways Hours	% of Total Program Hours
10th	One	**5 hours** out of 60	8%
	Two	**7 hours** out of 60	12%
11th	Three	**10 hours** out of 30	33%
	Four	**12 hours** out of 30	40%
12th	Five	**15 hours** out of 30	50%
	Six	**20 hours** out of 30	66%

[5] Thorough financial expertise to be provided by uAspire or a similar program.

METHODS & TOOLS

The Pathways Advisor will employ various methods and tools to effectively deliver what students need.

Methods:

- **One-on-One** meetings, which will provide youth with individualized guidance and support.
- **Group workshops**, granting students the opportunity to gain awareness and knowledge on key topics (e.g. financing higher education) in a group setting.

Tools:

- The **Pathways Plan** will be a written, working document that students will be required to complete and update on a regular basis. The format of the document will mirror that of the TPP Business Plan template, with which students will already be quite familiar. In the Pathways Plan students will have to: articulate their post-high school aspirations; reflect on their strengths and areas for improvement; justify their current coursework and extracurriculars; and list the steps for reaching their post-high school goals.

- Periodic **Field Trips** to post-secondary institutions and businesses will increase students' awareness of post-high school options.
- **"C-Shuffles"** (Career Shuffles) will provide students with the opportunity to meet with professionals working in varied industries within a short time-frame (e.g. 10 professionals in one hour), broadening students' awareness of career opportunities, and the level of education required to enter the field.
- A **Transitional Retreat** will be the capstone of the Pathways component. Students will be taken off-site for a 1-2 night retreat where they will reflect upon their TPP experience, address transitional challenges, and celebrate their post-high school plans.

PATHWAYS ADVISOR

Overview of Position:

The Pathways Advisor will be a **manager-level hire**, reporting directly to the Entrepreneurship Education Director. S/he will play a critical role in **supporting TPP's mission** – helping students "to achieve enduring personal and professional success."

The Pathways Advisor is expected to have professional experience providing educational and career counseling. S/he will split their time between direct service of students, conducting outreach to key partners (e.g. high schools, higher ed. institutions), research, and tracking students' progress. TPP is seeking someone who is a **generalist** in all of the below-described areas, rather than, for example, a financial aid expert.

Required Areas of Expertise:

- **Higher Education** – Knowledgeable on a wide range of post-secondary options, including 1, 2, and 4 year programs.
- **Financing Higher Education** – Familiar, but not expert, on financial options and processes, including scholarships, loans, and financial aid.
- **Educational/Career Counseling** – Prior experience counseling youth and/or young adults on higher education and career paths.
- **PYD** – Youth friendly, able to motivate young people, and a strong working knowledge of positive youth development.

Schedule:

In a 40-hour workweek the Pathways Advisor will divide his/her time up into four main areas:

1) **Direct Service**[6] of students = 15 hours (38%)
   - Direct service will take one of three forms: a) one-on-one counseling; b) group workshops; and c) field trips.
2) **Outreach** to post-secondary institutions, partner high schools, and community partners = 9 hours (22%)
3) **Internal Meetings** with staff, Board, and/or Committees = 8 hours (20%)
4) **Research/Admin.** related to such topics as college access, financial aid, and the tracking of individual students = 8 hours (20%)

[6] As a point of comparison, this calculates to 180 hours of direct service per trimester, whereas the Education Director currently dedicates 228 hours per trimester to direct service of students.