Alternative Education

A Presidential Leadership Academy Proposal

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Section I.

Alternative Education

1.1 | DEFINING ALTERNATIVE EDUCATION

Alternative Education can be defined as an experience outside of the conventional or traditional classroom setting that in order to achieve higher academic and intellectual comprehension of a single or multiple given subjects. This policy prescribes 3 forms of Alternative Education: Career Experience (Section 3.1), Project-Based Learning (Section 3.2), and Bridge Curricula (Section 3.3).

These forms of Alternative Education are crafted such that they each occupy a specific niche in a students' development and accentuate the core values of education at Penn State. Universities are responsible for one particular overarching principle in particular – the interests of their students. Among the most popular reasons students attend university are to attain employment benefits such as a better job with a higher salary and to simply become educated in a discipline of interest. Each of the three forms of Alternative Education that are outlined in this policy seeks to benefit these aspirations in particular, among many others. Specifically, career experience can give students advantages in the labor force, project-based learning takes a more individualized approach to attaining experience, while also in conjunction with bridge curricula, providing valuable resources to enrich and build one's education.

Finally, Alternative Education experiences aim to uphold three major values – autonomy in one's education, diversity in their studies, and active approaches to learning. Students should have autonomy in their education; they should have the ability and flexibility within their education to craft their experiences in ways that most benefit themselves and their interests. Students seeking to build or design projects should have the ability to do so and also have it count for credit to reinforce their core curricula. In effect, students should have an individualized degree with self-crafted dynamic skill sets that can be advantageous in both the

workforce and future pursuit of higher education if applicable. Educational autonomy will result in students exploring other disciplines, making them more versatile and diversified scholars. Ultimately, these values should be reinforced by students' ability to utilize active learning experiences as complements to their classroom education. Traditional classroom education only takes a passive role in students' learning, focusing on 'filling students with knowledge.' The most robust and all-encompassing education, however, is driven by internally catalyzed cognizance.

Offering and upholding these core values of both education *and* alternative education simultaneously provides incomparable learning capacity by synthesizing both passive and active forms of learning, which John Dewey, educational expert and philosopher, explains as a necessary interaction between traditional and new forms of learning. To best benefit students' interests, the principle responsibility of a university, these possibilities can be achieved by acknowledging and supporting forms of Alternative Education.

1.2 | MAKING ALTERNATIVE EDUCATION AVAILABLE

This paper aims at discussing the rationale behind making forms of alternative education more available to students proposed programs, requirements and qualifications, potential integration processes, and implementation options. Current university students face a dilemma balancing degree curricula, work experience, and individual projects and ambitions. It is extremely difficult for the average student to achieve equilibrium in their course load and schedule such that they can pursue these sorts of experiences. Given a number of inhibitions on students' availability to 'deviate' from the conventional system, it is nearly impossible for them explore educationally enriching experiences outside of the classroom.

Section II.

Problems With Conventional Education

2.1 | WEAK PREPARATION

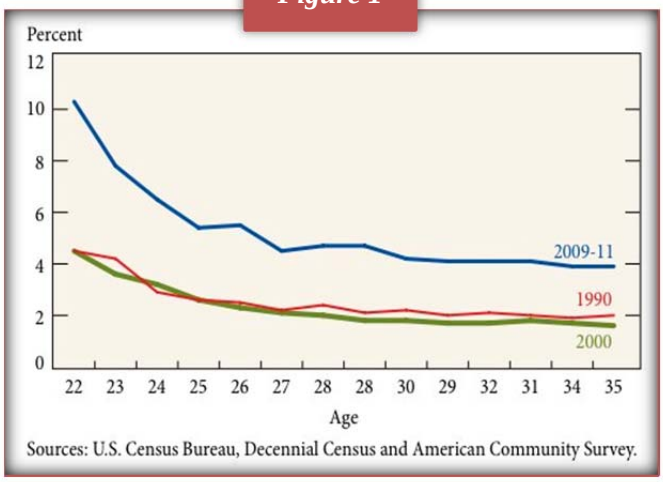
Please consider the following facts:

- **College Graduates' Unemployment Rate is higher now than it's been in the past two decades.** 4.1 percent of college graduates who were unemployed or underemployed in both 1990 and 2000, but between 2009 and 2011, this figure increased to over 10 percent (U.S. Census Bureau) – that is at minimum 160,000 new jobless graduates each year (NCES X BLS).

- **The disparity of unemployment between college graduates and everyone else has never been greater.** *Figure 1* shows unemployment based on age in the years 1990, 2000, and 2009-2011. In 1990 and 2000, the unemployment curve for recent college graduates was nearly identical, with a difference of only 2 percent between 22 year olds and people over the age of 35. In 2009-2011, however, this difference dramatically increased with 6.1 percent more 22 year olds out of work than those over the age of 35.

- **According to a survey by Accenture Consulting, 41 percent of college graduates from the past two years are stuck in jobs that don't require their degrees.** Despite their degrees, nearly two-thirds of graduates say they will need more training in order to get their desired job. This means universities are not teaching students the applicative and necessary skills to be a productive member of their *desired* work-force. The reason these graduates are not being hired is because their *cost of labor* to firms is *higher than the output they are producing.*

Figure 1



- **Contrary to common belief, employers will not usually provide any sort of job training.** Nearly 77 percent of students believed that they would be trained by their employer in order to ensure success, but less than half of the graduates in 2011 and 2012 got any sort of basic training. Employers expect students to already have the experience in their discipline necessary to hit the ground running.

- **With unemployment soaring, businesses wary of hiring**, college degrees becoming less significant in selection processes, and college tuition rising – all simultaneously – there is no question as to why the economy, labor-force, and universities have become so inefficient. Universities have become misaligned with their students' interests and it is hurting their success in the future.

2.2 | LACK OF EDUCATIONAL AUTONOMY

Students who pursue university education for employment advantages are not awarded with the expected benefits. On top of this, students are further limited intellectually by inflexible curricula structures and extensive, demanding requirements for credit substitution. Autonomy is currently not a prominent attribute of higher education, as students are unable to truly explore diverse disciplines. Consequently, as students struggle to find equilibrium in their college career to rightfully pursue alternative experiences, they are limited to the experience of classroom learning. Because all students vary in learning capabilities, preferences, and styles, this standardization of education is problematic to their intellectuality. No two students share identical learning styles, capabilities, or preferences, meaning teaching all students through one fashion or form is inefficient. To most effectively educate students, they must be given the ability to reflect further on the knowledge they gain in their classes. Just as reflecting on specific experiences furthers our understanding of them and causes us to extract lessons from them, taking classroom knowledge and applying them elsewhere is how students extract their true meaning. In order to improve students' experiences Pennsylvania State University should set a goal of making Workforce Experience, Project-Based Learning, and Bridge Curricula readily accessible and more easily integrated into degree programs. While Project-Based Learning and Bridge Curricula will provide students with the necessary autonomy in order to craft their education, Workforce Experience will target those students who are most concerned with increasing their workforce value to employers by improving the Internship and Cooperative Education (Coop) system and core curricula to best enhance their skills.

Section III.

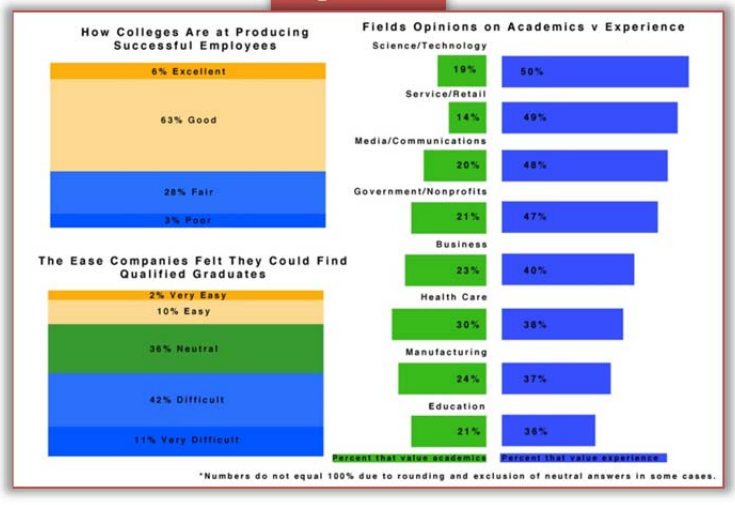
Alternative Experiences at Penn State University

3.1 | CAREER EXPERIENCE

In 1990, nearly 3 out of 4 freshman students who were asked the question "Why do you [students] attend college?" responded "to get a better job and to earn money." This was an increase from 54 percent in 1976, found by the same survey, a trend indicating that this sentiment towards going to college for employment advantages has most likely continued to rise and could be nearing the 90th percentile in 2015 (Higher Education Research Institute). A different report by The National Association of Colleges and Employers shows that of 704 employers surveyed, 63 percent were more likely to offer a job to a candidate that had extensive experience, while only 19 percent valued candidates more based on academic merit (National Association of Colleges and Employers). According to data, work experience leads more so to better jobs than classes do, but some students continue to believe " 'The way [employers] determine [your ability to do your job] is by looking at your GPA and what classes you've taken'" (Chronicle of Higher Education).

Illustrating these differing opinions, *Figure 2* shows colleges' views on how well they teach their students workforce skills and employers views on the level of difficulty they face trying to find qualified graduates. Only 6 percent of colleges were marked excellent at producing qualified grads and while 60 percent were considered good, over half of the surveyed employers felt it was difficult

Figure 2



or very difficult to find qualified graduates. Only 12 percent of companies found the search for qualified graduates to be easy or very easy (Accrediting Council for Independent Colleges and Schools)(Chronicle of Higher Education). This evidence suggests that there is a significant gap between the values employers want and the values that universities think employers want and emphasize to students.

The consequences that result are adverse and far-reaching. Students are not gaining sufficient career experience prior to graduation, becoming overly specialized, and lack versatility. It is becoming increasingly difficult for them to get jobs in their discipline and many take low wage jobs or go to graduate school in the hopes of reviving their desired career – both of which further delay the paying of all too familiar student loans. As long as this disparity continues, college graduate unemployment will result, especially as the economy hits record highs in unemployment, inequality, labor-force dropouts, and debt levels.

3.1.1 | Shortcomings of Conventional Education Model

The conventional, or traditional, education model aims at filling students with knowledge specific to their desired discipline. This approach, while it does teach students how to operate within their discipline, does not teach them to think critically or analyze, skills that are essential in order to have success in both the workforce and within academia. Without raw experience in a discipline, students cannot become truly well-rounded experts of their discipline (Dewey). This will hurt not only those looking to move into the workforce, but also those pursuing careers in Academia. Students do not wish to be taught by professors who have never been immersed into their topic of study and thus, universities should hire only the most experienced professors they can because experience brings a higher level of comprehension than does the classroom. This is a result of classroom education being limited by three major characteristics –

predetermined course work, limited access to modern contexts, and non-exploratory checklist approaches to education.

3.1.1.1 | Predetermined Course Work

Students already have a very strict course plan and do not have much flexibility within their curriculum. On top of this, class-covered topics are clearly predetermined, and, due to a plethora of tasks, exams, and projects, students are unable to further explore the subject of the class in the direction that they hoped that they could. As growing controversies in primary and secondary schools denounce a practice of 'teaching to the test,' there exists a similar, but less evident phenomenon with regards to post-secondary education of 'teaching to the degree.' This is especially true for STEM majors. Students are rarely empowered to take control of their education and explore realms that aren't dictated in their course work, either because professors do not have the time to provide them with additional leadership, or the university does not offer a class that is designed to teach the subject (Anonymous Political Science Student). This model is followed in order to ensure that all students are receiving a legitimate education, but it often results in a cookie-cutter approach that lacks individuality, autonomy, and exploration.

3.1.1.2 | Limited Access to Modern Contexts

With constantly evolving technology, this particular issue becomes particularly significant because students will lack key skills that may not be necessary to their university studies, but are expected in the workforce and important for a thorough understanding of their discipline. An example of how limited contexts can hinder a student's development is that marketing majors at Penn State currently are not extensively taught digital marketing strategies, despite it being a strong industry trend (Anonymous Marketing Student). In a time when companies like Google make between 94 and 96 percent of their revenues from online

advertising, the fact that marketing majors are not getting experience with critical skills such as Google AdWords is extremely problematic (Securities and Exchange Commission). This issue is driven by the fact that external market contexts do not change the course work that students are completing at Penn State University. While a step to alleviate this misalignment will be discussed in Section 3.1.2.2., merely participating in a disciplinary work experience provides students with the direction and undertaking to individually further pursue skills they currently lack.

3.1.1.3 | Non-Exploratory Checklist Approach

One of the most important characteristics of a lucrative education is autonomy and individuality. The strictness of the conventional system, however, while aiming to provide a structured education, interferes with and inhibits students' ability to craft their own intellectuality. Because students are tasked with Major Credits, Minor Credits, and General Education Credits, they do not have much room to truly and personally explore. Although General Education Credits aim at providing students with this ability to explore other disciplines, this system is far from perfect. Students are required to complete certain categories of courses rather than being able to map their own exploration, and are often incentivized to only take courses that are at an introductory level. This results in, once again, a checklist mentality. Aggravating the issue is the fact that credit substitution is a rarity; even when a Political Science student completes an internship in a Congressional Office where they draft letters and political documents eight hours per day, it is nearly impossible for them substitute the written skills they gained for even introductory English credits (Anonymous Political Science Student). These requirements, coupled with the fact that students often cannot afford to spend extra time at college, add to the cookie-cutter approach to education, in which students end up coasting

through their required classes and getting the required grades to receive a stock degree with no individuality or real career value.

3.1.2 | Shortcomings of Current Career Experience Model

These already apparent issues are exacerbated by inefficient systems that make it even more difficult for students to obtain the experience that is quintessential to their development. Disciplinary experiences are not made readily available to students by universities. Participation in these experiences is hindered by poor integration into degree programs and monetary pressure. These two integration issues as well as the previously mentioned shortcomings of the education model have extensive consequences, including a significant decrease in businesses' incentives to hire students.

3.1.2.1 | Poor Integration into Degree Programs

Most students know that professional internship and coop experience is an attractive quality to employers, but the problem is they are not well integrated into degrees. Coops are more attractive to employers because of their longer duration and maturity – there is more time management needed to balance work and school, more intellectual and experience progression, and future long-term recruitment likelihood due to longer emersion. Students who take coops are also ambitious and career oriented – qualities that employers value heavily (Goel). If a student wants to do a coop, however, that usually entails moving elsewhere for a semester and sometimes taking courses at another university, but this doesn't often translate to the same amount of degree oriented credits that a normal semester would entail. If a student wants to graduate in the conventional 4 years, they usually cannot fit one – let alone multiple – coop experiences into their time at the university unless they take summer classes, but these often

conflict with summer internships. Therefore, even though data suggests that a large proportion of college students know experience is invaluable and employers back up this assertion, the monetary and checklist strictness of the conventional credit evaluation system makes it difficult for students to attain the experience they undoubtedly need. Legitimate and truly engaging work-experiences should be more effectively integrated into degree completion because they are both educationally and professionally enriching.

3.1.2.2 | Monetary Pressure

There are a number of costs students associate with pursuing a Coop or internship with hopes of receiving credit. Primarily, if the experience is being completed during a fall or spring semester, there are opportunity costs associated with credits, which is why many students choose not to pursue Coop experiences. Because it is rare to receive substantial credit for a career experience and students are not often able to afford extra semesters at college, a quick cost-benefit analysis will show that, in the long run, it is cheaper to continue as a full-time student and not participate in a Coop experience. A student who completes a Coop experience in the fall of their sophomore year may return unable to take their major prescribed spring classes because the prerequisites were only offered in the fall. In this case, a one-semester Coop experience will result in an entire extra year – at minimum – added to their degree completion, a monetary risk that most students cannot afford to take. While it is obviously more aesthetically and career valuable to participate in a Coop despite the monetary costs, the fact that students are not guaranteed compensation for housing and travel adds to the possible budget deficit.

With regard to internships, since most are completed in the summers, they generally have fewer hindrances on degree completion; however, the cost associated with substituting credits can be a hindrance on further interdisciplinary exploration. Because students must pay a

substantial sum of tuition in order to substitute experience for credit, they often choose not to do so. When students are able to afford credit substitution, it relieves the previously discussed strictness of their degree course work, allowing them to experiment with and personally explore other majors or minors as well. When students surrender credit substitution, they surrender the autonomy of their education. Not only does this result in less degree exploration and versatility, but the cost of credit substitution decreases incentives for students to complete career experiences, which is detrimental to their future career as well as the university's reputation.

3.1.1.2 | Business Incentives

The shortcomings of both the current education and experience integration models cause students to be less skilled in their disciplines, which makes them less valuable to employers. Due to economic uncertainty, employers now spend less money on training programs; instead, they do not hire student interns or recent graduates, a trend started by Netflix that many other businesses followed because "the benefits don't justify the cost" (Bushey). Universities should be training students for their potential careers, but they often are not fulfilling this purpose. A marketing major at Penn State even admitted that he has experienced walking into an internship extremely unprepared and lacking the skills they expected, which also hindered his professional development since he started a step behind (Anonymous Marketing Major). Training costs businesses valuable monetary capital, usually causing them to lose money on interns (Goel). Therefore, the sole incentive employers have to hire interns is for long term recruiting.

Unfortunately, even this incentive is beginning to fade as long term recruiting payoff for businesses has declined drastically, since graduates are becoming increasingly mobile in their careers. A Future Workplace study of 1,189 employees and 150 managers found that job hopping has become the norm, as 91 percent of people born between 1977—1997 stay at each

company or job for less than 3 years, holding at least 15-20 jobs over the course of their career (Meister).

These phenomena create a catch-22 for both students and businesses. Many businesses cannot afford the training and time necessary to hire a large number of interns, but they are continually at risk of full-time employees leaving for new jobs. Similarly, students often cannot afford to take longer than 4 years to graduate – assuming they are not on a scholarship – due to inflating tuition costs, but if they do not get enough professional work experience, they will have issues getting a job in their discipline. With a core university value being devotion to its students, universities have a responsibility to ensure students that their education and degrees are as dynamic as their career will likely be. The dilemma is no miniscule issue, as unemployment in college graduates continues to rise and hit all-time highs. The university degree programs and career experience system have not adapted to align with the evolving necessities driving effective disciplinary progression.

3.1.3 | Benefits of Career Experience

Career experience presents a number of benefits. When taking on real tasks relating to any discipline of interest in a professional setting, students are expanding beyond the scope of learning. They are critically thinking and applying skills that they learned in the classroom to their life and thus, reaching a more heightened comprehension of their meaning and significance. Due to practical challenging projects, professional oversight, and applicability of classroom knowledge, career experience is a valuable resource for students who may seek an independent, but sufficiently structured, immersion into their discipline that can also drastically increase their workforce value.

3.1.3.1 | Practical Challenging Projects

This particular benefit can alleviate all of the shortcomings of conventional classroom education limitations, described in Section 3.1.1. Because an internship requires problem solving for real businesses, governmental organizations, or academic institutions, students will get a glimpse of practical world influences on their discipline and decision making with regard to their implications. This can be a strong catalyst of individual learning and exploration, as students are required to acclimate themselves to relevant contexts. As they learn on the job, they will begin to realize their strengths and weaknesses. From those they can draw professional and disciplinary skills they need to improve on and potential career paths they can take to best utilize their natural skill sets.

3.1.3.2 | Professional Oversight

In a career experience, students are often overseen by a professional in their field that act as a mentor and provide assistance, especially during internship and like experiences. A benefit of career experience that is not present in project-based learning, which will be discussed in depth in Section 3.2, is the structure. Employers structure their internship and coop experiences to get the most output from their student-employees, which in turn give students a very fast past and robust experience. In an environment that is run by professionals and experts in their discipline, students are pressured to keep up with their coworkers' intellectuality and comprehensiveness. Finally, while being intellectually challenged, students also benefit from simply interacting with professionals. They can attain valuable relationships that can be advantageous in the future as well as improve their cooperation skills and dependability, benefiting both inside and outside of academia and the workforce.

3.1.3.3 | Applicability of Classroom Knowledge

Career experiences take the conventional classroom education to the next level by teaching students how to apply the knowledge they learn to problem solving and critical thinking. This is a benefit in all majors and disciplines whether STEM or Liberal Arts and applying classroom learned information to practical contexts is a necessary skill to have for all careers – corporate, government, law enforcement, academia, etc. John Dewey, in his publication titled "Experience and Education," strongly emphasizes this fact. Classroom or traditional styles of learning are of "imposition" and external sources, while experience creates education and learning that originates internally with a more wholesome understanding. Students make "pure and faster progress when [they] devote themselves…to finding what conditions must be satisfied in order that education may be a reality" (Dewey).

3.1.3.3 | Workforce Value

Participating in multiple forms and occasions of career experience makes students extremely attractive and valuable to employers. While other forms of alternative education can provide greater benefits to students' individualism and autonomy, career experience focuses on the primary goal of ensuring students what they attend universities for – jobs and higher salaries. A myriad of outcomes of students obtaining career experience were previously outlined in the introduction to Section 3.1, including employers being 63 percent more likely to hire a student with career experience than a student without and wages are significantly higher for graduates with extensive experience. Even graduate schools value a student's ability to critically think in a work setting as many encourage or expect students to have at least two to three discipline oriented work experiences before applying.

3.1.4 | Career Experience Policy

Pennsylvania State University is a gold mine for students and employers – employers have access tens of thousands of prospective employees while students gain a vast web of connections upon admittance. Penn State also prides itself on the wide breadth of offered areas of study, a paramount benefit to all students on campus. The university should, however, strive to continually improve the education we give to our students. Provided below are three key steps that could have incredible impacts on students, making them more active learners, intellectually versatile, and enriching their education with individualized and internally-driven experiences.

3.1.4.1 | Integrate career experience more effectively into degree programs.

It is imperative that we give students as much experience in their discipline as possible by integrating internships and Coops more effectively into their studies. This calls for two specific improvements:

- *More scholarship and grants* available to students to pursue alternative experiences
- *More accessible and cost-effective credit substitution* for legitimate and applicable career experiences

Because monetary pressure is a large issue hindering students' participation in experience-based education, Penn State should make scholarships and grants as accessible as possible for pursuant students. Additionally, upon completion of an Internship or Coop experience, Penn State should reward credit compensation to students completing truly enriching experiences, whether major oriented or explorative. Providing students with credits at a lower monetary cost would also increase students' incentives to participate in alternative experiences as well as free up their strict course load and allow them to explore other areas. Top-notch universities continually seek to produce the most academically robust and elite graduates – the

best way to make students more competitive and versatile is to make work experience readily accessible and incentivized. This will result in Penn State graduating the most experienced and professionally acclimated students that will perform at the top of the work force.

Evaluation of experiences is the most important component of implementing this step. We certainly cannot give students credit for illegitimate internships; for example, when their job entails getting coffee for the office and running mindless errands. We must, however, strive to give students credit for completing legitimate and enriching alternative experiences. To evaluate students' advancement, they will be required to submit periodical and semester concluding portfolios – consisting of two components:

- *A structured form* in which students will indicate number of hours worked since the last submission, a reference to the full time employee that oversees them, and other important structural information; and,
- *An open-ended portion* in which students will express in detail the experience they have gained, the skills they have acquired or improved, the jobs they were given, and other important experience-specific information.

These portfolios should be reviewed by a qualified professor who will evaluate and assess the student's internship based on the tasks he or she is given and the amount of progress or improvement they see between submitted portfolios. Based on the evaluation of these portfolios, students will either be denied credit for illegitimate experiences or awarded credit for either their general education or degree based on the apparent skills they obtain throughout the course of the experience.

3.1.4.2 | Utilize private businesses' involvement in curricula creation and evaluation.

It is evident that students currently attend universities for the primary benefit of getting a job and earning a higher salary. Thus, universities and employers must effectively understand

each other's preferences and interests. In order to make Penn State students the most attractive to employers, the university must learn exactly what employers are attracted to. There should be a strong relationship between employers and universities in order to ensure that students are being taught what they need in order to be the most productive employees as possible. Holding periodic meetings between these two actors in which current curricula is reevaluated based on changing markets, technology, and values will ensure that curricula and students are perpetually up to date with the real world.

While involving private businesses and employers in curricula-related processes is very beneficial, they should serve solely as inputs of information and opinions – these actors should not be creating curricula. The creation of curricula is left tasked to the committees and personnel currently responsible, but they will receive valuable input from professionals immersed in their discipline in order to make the most informed choices possible.

3.1.4.3 | Strengthen these relationships by exploring Corporate Sponsorships.

Corporate sponsorship is a growing phenomenon throughout the United States as a key relationship between businesses and education institutions because they are simple, feasible, and extremely beneficial to all participants. Essentially these are investments businesses can share with our students that can provide valuable monetary resources as well as technological resources essential to students' development. Penn State's own relatively new Information Sciences and Technologies (IST) College already utilizes this form of business relationships expertly.

The college receives millions of dollars from businesses monetarily and through the form of new technologies or software. This allows the students in this college to work with the most up-to-date technology and be constantly learning new necessary skills to be successful in their

discipline because they receive constant resources and inputs from their corporate sponsors, who want to see their success. Universities benefit greatly from this system because it is a new source of income and makes allocating resources as simple as possible. The aforementioned scholarships and grants in Section 3.1.4.1 will not be as costly as they may appear if this resource is utilized effectively. The IST College is able to require their students to complete an internship or Coop prior to graduation and the reason they can do this is due to their use of corporate sponsorships. Of the millions of dollars they receive from these investments a substantial sum of it goes to funding students' alternative experiences, resulting in all of their graduates being extremely experienced and productive (Meyer). Unsurprisingly, the IST College has an extremely high job placement rate – 85% of their graduates have a job by the time they graduate. Finally, the corporate sponsors benefit greatly from this relationship as well. Not only do they receive recruiting benefits on campus, but they are given the opportunity to craft students into the employers that they want most by being involved in curricula creation.

The ultimate benefit of this model is that it is self-sustaining. If students exit Penn State with the exact skills that businesses desire, they will receive jobs and produce well given their already attained experience. Businesses that see this production increase will then gravitate more towards these students – seeing them as a return on their investment – and will invest more in future students. Finally, given these two factors, the university will have obtained a constant, or growing, flow of monetary and technological resources that can be used to further improve our students' education inside and outside of the classroom.

3.1.3 | Impacts of Career Experience

Students pursuing career experience will have the opportunity to further expand the knowledge and skills they learn in the classroom. With more availability and increased

feasibility for students, the university as a whole will make way to a more comprehensive and intellectual student body that achieves beyond the scope of the classroom. By incentivizing students to pursue alternative experiences like career experience, the university will also achieve a higher reputation amongst students, employers, and other academic institutions. Students will be able to further explore diverse disciplines due to released rigidity of course work, bring external contexts to internal functions of the university, and achieve beyond the ability of their competitive peers in their respective career paths by immersing themselves into the origins that create their discipline.

3.2 | PROJECT-BASED LEARNING

For students who are unwilling or unable to commit taxing input with respect to proximity or ventures outside of a given area of study, there is a form of alternative education that is both localized on campus and able to be integrated into any given curriculum. Such an undertaking allows students to supplement ongoing studies with unique experiences that not only provide important skills, but also enable these lessons to develop in such a way that concurrently reinforces the core material. These efforts, henceforth referred to as "project-based learning", are defined, for the purposes of this policy, as:

i. Can be executed locally.

ii. Run concurrently to, and integrated with a core curriculum delivered by traditional means[1].

iii. Maintain clear objectives with productive output.

[1] While there is no reason for "project-based learning" in general not to include projects unrelated to one's degree, this policy will focus only on those that can be integrated with the core curriculum. This optimizes the benefits it offers with regard to application and core material reinforcement. Students wishing to pursue a form of alternative education outside of their areas of study may do so under the requirements of bridge curricula (Section 3.3).

iv. Place the student in a leadership position or a critical role in design and execution. Students will have the opportunity to drive their own education and optimize retention of core subject matter, without interrupting their studies. While many methods of alternative education provide unique skills not guaranteed through the traditional classroom setting, none so elegantly integrate the curricular essentials with alternative educational advantages.

3.2.1 | Shortcomings of the Conventional Model

The working curricular structure in place at most universities such as Penn State is not conducive to an education that deviates from the predefined course of study. An analysis of the prevailing circumstances provides telling insight, necessary in order to understand the modifications required to incorporate project-based learning into the typical degree path. At most universities, and at the Pennsylvania State University in particular, the array of preexisting projects and research enterprises is both abundant and diverse. Yet, there are greater possibilities of potential projects to be devised. The limiting agent at play, in most circumstances, is not the availability of project-based learning opportunities, but rather the restrictive structure of the conventional educational system. Structural challenges can be summarized by three obstacles—inflexible curricula, limited educational scope, and repressed independence—that prevent a student from bringing his or her complete experience to fruition.

3.2.1.1 | Inflexible Curricula

The established degree paths are simply too rigid to allow students any flexibility in their education. Administrators prescribe a specific program of courses required to earn the degree, including not just the core material in stipulated sequence, but also, in the interest of a well-rounded education, an assortment of non-degree credits. Students may exercise limited freedom in the specifics of some general education requirements, but oftentimes, even non-degree credits

are predefined. These requirements are in place to ensure that students receive a broad education, but the constraints restrict both the availability to pursue an alternative form of learning and the freedom to drive one's own educational experiences.

3.2.1.2 | Limited Educational Scope

Conventional teaching methods limit the scope of education that students receive. Common pedagogic tradition follows a classical structure that regards the student as a vessel, to be filled with knowledge to the ability of an instructor. The result of such an approach is that education cultivates about a teacher-centric focus, as opposed to that on how students learn, which dangerously assumes a direct link between delivery methods and learning outcome. A wholesome learning experience includes not just the delivery of material, but how effectively the student interprets, analyzes, and applies it to his or her advancement. The function of any effective vessel, however, is simply to retain, a passive role that leaves little room for creativity or initiative. Educational theory has widely evolved to encompass far more wholesome objectives, beyond the memorization of obscure grammar rules and historical dates. Most modern curricula place value in critical thinking skills, leadership, and resourcefulness, but our teaching methods, for the most part, continue to follow the classical model that aims to "fill" students with knowledge. They do not require the student to play an active role, and thus cannot guarantee the skills and qualities provided through action and experience.

3.2.1.3 | Repressed Independence

Conventional educational methods repress independence and ambition. Both curricular rigidity and limited educational scope deny students autonomy in their education and the initiative gained through active learning. Traditional approaches not only dictate which courses students are to take and in what sequence, but also the material is delivered in such a way that

does not necessarily require engagement with the lesson. Students are denied the freedom to drive their experiences to best suit their needs, strengths, and interests. They are established in a passive role that fails to encourage them to exercise initiative in learning.

3.2.2 | Benefits of Project-Based Learning

To pursue a form of alternative education is to open the opportunity for a wide variety of experiences that can each, in their own ways, provide a unique element to the one's education. The deviation from standard education and the diversity of alternative methods allow the student to customize her experience to meet her individual needs and optimize her distinctive qualities. Project-based learning is one of these many categories of alternative education, and offers its own special advantages. Because of locality, core curricular reinforcement, unique skills, and productive output, project-based learning may be an appropriate fit for a given student wishing to pursue a more independent form of alternative learning.

3.2.2.1 | Locality

Students engaging in project-based learning can execute their work while remaining local to their college or university. In higher education, the concepts that form the foundation of a degree are robust and advanced such that the variety of methods by which they may be delivered is limited, and conventional teaching methods are often necessary to convey the bulk of degree-related material. Project-based learning is thus not intended to replace the traditional delivery of core curriculum, but rather will be implemented paralleled to this structure. Students will be allowed to cultivate the skills and practices prescribed for a wholesome education while still obtaining the core material through traditional methods. This concurrency provides two distinct advantages with regard to the logistics of such an undertaking. First, the time commitment can be spread so as to integrate within the curriculum. The benefit is optimized when the experience

is intertwined with the core material of one's degree, as is the case of project-based learning for the purposes of this policy. Students that choose this experience are much less likely to require an extra semester of schooling, which is taxing on students both financially but in an opportunity cost as well. The second major advantage of the locality and concurrency of project-based learning is that it alleviates the financial burden incurred through relocation. In addition to the potential addition of a semester, leaving school can be expensive. While some internships and coops provide a salary to lessen this burden and some colleges offer study-abroad stipends, partial tuition/fees to remain an active student and the cost of travel and living (housing, food, etc.) often still present an overall expense, compensation notwithstanding. But alternative education that remains local allows concurrency with one's degree, and by concurrently building the foundation on which is based the traditional nucleus of the degree and engaging in project-based learning, students may pursue a multifaceted education of their own design without having to endure the financial and timey costs associated with a similar such venture, had it taken place away from campus. Concurrency, however, also improves education by another means.

3.2.2.2 | Reinforcing Core Curricula

Reinforcing core material is a critical phase in a learning process that is otherwise only as deep as the amount of material the student absorbs at face value. By traditional teaching methods, this is likely very little. The magnitude and breadth of higher education subject matter are so vast that to rely exclusively on lecture-style teaching[2] to deliver a lesson risks a serious disconnect between the student and the material, as well as the student and the professor.

[2]It is not only erroneous to claim this generalization of every course in every institution, but does a disservice to unique, engaged, and highly effective professors. Unfortunately, however, even great professors are sometimes lacking or may be restricted by the nature of their course. Thus, for these purposes we will assume this generalization to be true for a majority of traditional teaching methods.

Homework assignments can only promise limited payoff by coercing students to labor at lessons of only detached relevance at best. Project-based learning aims to concurrently supplement core curricula by providing the applicative element that conventional educational methods cannot. It cannot be understated how crucial application is to the reinforcement of a lesson, and how the concurrency of traditional and project-based learning optimizes the two mutually in such a way.

Conventional teaching methods and project-based learning can be equated to educational theorist John Dewey's interpretation of "traditional" and "progressive" education. The former, according to Dewey, follows the structure that provides students, by means of teachers as an instrument, the wisdom of the past as a static finished product, whereas the latter employs active experience to cultivate individuality and expression without imposition from above and outside. But in his work *Experience and Education*, Dewey argues strongly against "either/or" mentality in the dichotomy of traditional or progressive education (Breault, 49). The two instead complement each other best when implemented in parallel, as they are not mutually exclusive, and in fact rely on each other to be most effective. The question according to Dewey is then how to help the "young become acquainted with the past in such a way that the acquaintance is a potent agent in appreciation of the living present." (*Experience and Education*, 10) In layman's terms, a curriculum must strive to equip students with the established subject matter (the past) so as to be applied to new experiences. The "acquaintance" that Dewey indicates is, in this context, project-based learning, which effectively connects remote classroom material to its application. The "appreciation" of the living present is application—its interpretation and exercise toward a given objective.

Linking what is known from the past through the present to its application to present and future uses is in keeping with what Deweyan theory refers to as "the continuity of education".

(*Experience and Education*, 29) Project-based learning upholds the educational continuum by demonstrating the flow of information and experiential understanding from what is previously known to its present and future use. It shows how the material taught in the classroom has a direct application to real practice and in life. This is the connection that many students require in order to understand the significance and applicability of the subject matter, as well as engage them in the material. It changes what was before simply an abstract idea into something real, with valid use not just in the classroom, but also across the continuum from the present to the future. By demonstrating the application of subject matter, project-based learning reinforces the fundamental material delivered in the classroom and thus provides depth to the learning process. The project and the core curriculum in collaboration thus beget a far more robust degree. But the mechanism itself at work in project-based learning application is more than simply identifying the curriculum's utility; it is only so powerful through action.

3.2.2.3 | Unique Skills through Student-Driven Action

Project-based learning ensures the cultivation of certain skills that cannot be inculcated in the traditional classroom setting. Under this model, the mechanism by which lessons are delivered or reinforced is not an instructor, but rather action. Through student-driven action, project-based learning nurtures creativity, critical thinking, problem solving, and resourcefulness. The resounding difference between the classical methods of teaching and certain forms of alternative education is that to diverge from the conventional passive student role is to shift emphasis from the teaching input to the learning absorption by empowering the student to develop these skills by his or her own accord through experiential learning. Along that same vein, but a step further, is to place the student in a position that not only encourages creativity and critical thinking, but also allows the student the flexibility and means to drive his

or her educational experiences. This can be accomplished by enabling access to some independent undertaking in which the student is in a position of leadership or has a heavy influence in design and execution. Project-based learning enables students not only the freedom to pursue a curriculum that deviates from conventional passive learning models, but also the independence to drive that education through the enriching power of their own initiative. By stimulating them to shift their role in the educational forum from passive to active, project-based learning empowers students with the autonomy to drive their own experiences. They have the freedom not only to choose to pursue a form of education that deviates from convention, but also to lead its execution. Autonomy in one's education—in this circumstance both in the curriculum as a whole and in leading the individual project—is a key element of a wholesome and effective experience in which the student is truly invested in educational growth, as argued by Stanford professor of education, Eamonn Callan in his book *Autonomy and Schooling* (Callan, 56). Educational autonomy propagates both the leadership skills and the initiative to act on the ambitions being cultivated. Through these efforts, students derive such lessons through actual practice—developing leadership by being leaders, ingenuity through engineering, and intuition through repetition.

3.2.2.4 | Productive, Not Just Instructive

Project-based learning provides a channel by which to exercise these practices in such a way that not only teaches and develops, but also produces meaningful and useful output. Design projects yield tangible products with real uses, independent research efforts provide data and understanding to their respective fields, and startup businesses contribute to industry and economy. Conventional education can only promise to deliver high quantities of material; it is informative, but not productive. These benefits, however, are not just isolated to their respective

fields; they are also especially gratifying to the student whose labor and leadership have brought the project to fruition. Demonstrating a real, observable impact is especially valuable to validate the effort and further reinforce the lessons acquired. This is the final phase of the wholesome learning experience. Again, the Deweyan continuum of education is called for: “It is as if the child were forever tasting and never eating; always having his palate tickled upon the emotional side, but never getting the organic satisfaction that comes only with the digestion of food and the transformation of it into working power.” (*The Child and the Curriculum*, 21)

3.2.3 | Project-Based Learning Policy

This policy aims to provide students with the most enriching forms of project-based learning, to best capture the values of higher education and provide a practical and varied array of unique skills and qualities. The programs and corresponding infrastructural adjustments are designed to allow for easy integration into the student’s established curriculum at minimal cost.

3.2.3.1 | Subcategories

Students wishing to pursue project-based learning will have three options from which to choose in order to meet university-recognized alternative education requirements. Students must complete a full term of one of these subcategories to receive credit. One term shall consist of one semester of approved work related to the student’s area of study, with a minimum of fifteen hours of input per week for fifteen weeks. Students meeting this requirement for the full length of the term, with approval from a predetermined faculty or staff supervisor, shall be awarded three credits toward alternative education requirements. The following three subcategories shall be considered as legitimate forms of project-based learning:

- **Design Projects:** The project will consist of an organized effort with an objective toward a productive output. The objective must be predefined at the onset of the project, and must demonstrate practicality with a clear outline for a strategy to reach the goals of the undertaking. The student will be in a position of leadership by playing a critical role in the design and execution of the project.
- **Research:** The project will consist of a deeper exploration into the student's area of study. The focus of the research must be defined at the onset of the undertaking, with specific questions stated and corresponding methods and procedures detailed. The student must play a critical role in the research execution, and must produce meaningful findings or progress at the conclusion of the term.
- **Startup Companies:** The project will consist of a business venture founded by the student. A practical business plan must be detailed in advance, with achievable goals and clear strategies and timetables to reach them, or revise them.

3.2.3.2 | Faculty Partnerships

Each form of project-based learning requires detailed documentation before, during, and after the term. Strategies and procedures must be specified, progress must be recorded, and results must be reported and analyzed. Students must receive approval to carry out the work, as well as supervision to ensure adherence to the fundamental values of the project. For this purpose, students will be required to partner with a faculty or staff member that will oversee the undertaking and ensure that the specified requirements are met. This supervisor may be a professor, a researcher, an adviser, or a similar such authority, approved by the student's adviser. The supervisor will not only ensure adherence to the credit requirements, but will be able to provide guidance and insight into the student's work. For this reason, the supervisor must have

qualifications in the area of study, as will be approved by the adviser. Training, management, and incentive policy will be detailed in Section 4.1.3.

3.2.3.3 | Documentation

Students engaging in project-based learning will be required to submit detailed documentation at the onset, through the duration, and at the completion of each term of work. This documentation will ensure that the student is engaging in an enriching experience that adheres to the values of alternative education. To meet these requirements, a strategy proposal must be submitted and approved before work can begin. A report must be submitted once per month for the duration of the term, to be reviewed and evaluated by the faculty or staff supervisor. At the end of the term, a comprehensive report will be submitted to the supervisor that details the findings of the work, with successes and failures and their corresponding analyses. Only when all documentation has been submitted, reviewed, and approved by the faculty or staff supervisor will credit be awarded. Project-based learning may also be used for credit substitution in order to more easily integrate the experience into the student's curriculum. Requirements for credit substitution will be detailed in Section 4.2.2.

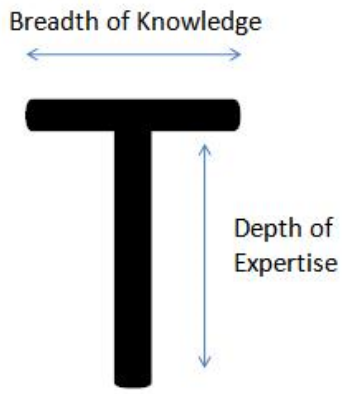
3.2.4 | Impacts of Project-Based Learning

By pursuing project-based learning, students will have the opportunity to engage in learning experiences not guaranteed by the conventional education model, and unique even to alternative methods. They will use active experiential learning to acquire skills and qualities that will enrich their education and ensure a wholesome, well-rounded degree. Students in this model will exercise leadership, independence, and initiative by engineering a curriculum of their own design, and leading its execution. They will be able to complete this experience locally, with minimal financial expenses or time delays. With this policy, students may build a personalized education to fit their unique needs and strengths.

3.3 | BRIDGE CURRICULA

3.3.1 | Importance & Introduction of Bridge Curricula

Figure 3



Stanford University, a world leader in both innovation and higher education, produces some of the worlds most robust and sought-after students. A major aspect of this accomplishment is because they aspire to make all of their graduates "T-shaped" or rather, complete an "interdisciplinary education". In a 2012 article in the New Yorker, Stanford said that their goal with this rounded approach was to "instill empathy" in their students concerning different subjects and backgrounds and "also breadth [their students education] across multiple disciplines (The New Yorker)." In a world that is growing to be more complex and fast paced, students must have a robust education that can withstand continually evolving careers regardless of pursuing their lives in academia, government or industry. It is even more important to help students better understand the context of their studies to better understand their pursuits of knowledge.

3.3.1.1 | Building A Robust Degree

For industry, building student's academic empathy through a broad range of tools that accompanies their core studies is especially important. "The average worker today stays at each of his or her jobs for 4.4 years, according to the most recent available data from the Bureau of Labor Statistics, but the expected tenure of the workforce's youngest employees is about half that (Forbes)." Higher education programs need to adapt to this growing trend by integrating curricula that supplements and bridges their degree program to better think in a complex systems context. For example, it is no longer possible to succeed in politics today without understanding

media strategies used in industry. In the world that we live in it no longer makes sense to pursue research and academia without seeing the context of how it benefits and integrates into society as a whole.

A great example of someone who understands the value of cross-discipline knowledge and alternative experiences is Harper Reed, the CTO of Barack Obama's 2012 re-election campaign. Before diving into the public sector, he graduated from Cornell with degrees in both Philosophy and Computer Science, and then went on to become the CTO of Threadless.com from 2005-2009 (Harper Reed!). Harper Reed is someone that understands the bridge between these sectors at it's very core and is a great model for cross-disciplinary students.

For students earning a degree with plans to stay in Academia, the philosophical and educational value is clear as well. Expanding academic empathy allows others to see things from alternative points of view. In turn, this these sort of critical thinking processes can improve creativity, according to Scientific American, and can give those studying a historically static subject a new perspective (Scientific American). The pursuit of said Bridge Curricula can help students succeed in both the classroom and research in a career focused in Academia and promote innovation in each.

3.3.1.2 | Shortcomings of Conventional Model

At many universities across the country, and Penn State, degree programs only attempt to provide this sort of robustness within their programs at a very minimal level. Beyond general education requirements that students must meet, diversity is barren in terms of the types of experiences students often receive. Students are not expanding their breadth of their degree so that they have an arsenal of skills when graduated to pursue their goals.

Marketing majors, for example, are not even required to learn core technical supplemental skills such as Google Adwords or advertisement design within their required coursework (Smeal College of Business). They learn their core-material, marketing, but that skill itself is often not enough. Similar to the danger of monoculture farming, cookie cutter higher educations programs that follow strict and narrow templates make the entire higher education system fragile and vulnerable to change in the long term. It also puts the students of such system in grave danger since they are often dependent on how they can adapt to the changing economy.

3.1.1.3 | Bridge Curricula Advantages

Through bringing in different types of alternative education experiences and courses that bridge a student's core curricula to others, students can learn new subjects and gain versatile skills that make their education more robust and pragmatic and enhance the core material that they are learning all at the same time. Under Penn State's 2013-2015 general education reform movements, leaders hope to "ensure that all students, independent of major, develop skills that are essential for life and work in the modern world (University Bulletin)." Bridge Curricula can help enhance that process where traditional educational processes cannot.

3.1.2 | Defining Bridge Curricula:

Bridge curricula are curricula that are divergent from your core learning outcomes that are a result from your degree programs, either by format and/or content. Working closely with their advisor, students may choose bridge curricula on an individual basis, and work closely to see how this Bridge Curricula fits into their degree experience. Each experience often differs by nature and structure. Below are several types of Bridge Curricula that can be included to

supplement student degree programs, or even replace certain courses or general education requirements:

3.1.2.1 | Study Abroad

Penn State's Global Studies Program is already one of Penn State's largest alternative education initiatives, and is nearly always reported as student's most enriching and valuable experience during their degree. Students would receive alternative credits from Penn State's Global Studies Program that would count towards alternative education requirements that they may have set by their college or the university. Study abroad programs allow students to get a global perspective that is needed in a globalized age.

3.1.2.2 | Skill Courses

Skill Courses are courses that focus on developing specific skillset, not necessarily a study of set of topics. According to Dr. Rosson, Professor and Associate Dean for IST, The College of IST is developing a 1-credit course that focuses specifically on students learning mobile development. This is a clear skill that leads to, on average, a $97,000 salary (AngelList). The goal with these classes is to supplement students major with a clear skill, as opposed to a particular topic (Jones). Colleges across the university would self-evaluate what type of skill courses that they will offer based on their own internal criteria. These offerings would be available to anyone across the university for alternative credits.

3.1.2.3 | Exploratory & General Education Courses

Exploratory courses and general education courses pertain to a subject area that enhances your core subject area, not necessarily directly related to your exact degree. This could include higher-level languages or other synergetic curricula that a student wishes to take. Depending on

the outcome of the current General Education reforms at Penn State, students could earn Alternative credits depending on their theme and course selection and the relation of such to their major. The decision to give alternative credit for a student's general education choices is left to their academic advisor using specific guidelines that are governed by the university.

3.1.2.4 | Hybrid Courses

Courses like Adventure Literature and courses in the Global Engineering Education program are hybrid courses that enhance a student's core curricula with real life experiences. In Adventure Literature, "students not only read Thoreau, but like him they travel to the mountains, the river, or the seashore; they hike, climb, and kayak; and they write about their experiences (Penn State Adventure Literature)." These sorts of programs allow students to expand their learning experiences outside of the classroom and capitalize on a unique educational experience.

3.1.2.5 | MOOCs & Online Courses

Penn State is currently offers 7 MOOCs through Coursera, all of which are taught by current and former Penn State professors (Coursera). While we suggest to not give official alternative credits for non-Penn State MOOCs alone, never before have courses been available for free and open enrollment from the world's top intuitions that can serve as powerful resources in independent study courses. Penn State can also take advantage of Coursera's Verified Certificate Program to award credits for completing a Penn State MOOC (Coursera). MOOCs allow students to learn from cutting-edge platforms all while allowing students to be more flexible with their course planning.

3.1.3 | Challenges Facing Bridge Curricula

The biggest challenge that faces the integration of bridge curricula is ensuring the opportunity to allow all students to fit bridge curricula into their schedules despite their major. Though students can choose to take MOOCs while on a coop, or choose a general education theme that earns them alternative credit, not all students will be able to take advantage of every type of alternative curricula without working with their academic advisors on credit substation policies.

3.1.4 | Impacts of Bridge Curricula

Bridge Curricula by and large is an opportunity to provide students with academic flexibility with their courses, instilling academic empathy, and exposing students to different learning styles and experiences. Regardless whether a student is pursuing knowledge for the sole sake of education, ambitions in Academia or Politics, or a career in Industry, there is clear and useful value being brought through this alternative education outlet. In combination with career experience, a student's core curriculum, and project-based learning applications, a student can better examine their own lives and learning styles unlike anything offered in the traditional classroom.

Section IV:

Integration of Alternative Education At Penn State

4 | APPLYING POLICIES TO PENN STATE

Penn State is a world-class university. This has been proven time and again by nationwide and worldwide university rankings. But as discussed above, employers and graduate schools are not looking for students who are just good students. Instead, in-depth research experience, large projects related to one's field and internships with good reviews indicate a good future employee than being a good student. If Penn State wants to produce educated individuals who are ready for the workplace, graduate school, or government work, then in depth experience applying classroom material is crucial for proving one's ability to perform in the future.

There are several ways to prove ability to perform in the future, whether working on Penn State's Lunar Lion team to send a spacecraft to the moon, working for Northrop Grumman designing this country's future defense systems, doing research on classical literature, or writing a book with a faculty member. Many options like these are discussed above. It is important that Penn State expands these opportunities for its students and ensures that its students receive excellent experiential education via these opportunities. If this is the case, Penn State will further itself as a world leader in education.

Penn State's Strategic Plan represents the university's values by defining the goals of the university and determining how they will be measured and carried out. Penn State's first goal as stated in the Strategic Plan is to enhance student success. One specific goal of this section is to "strengthen infrastructure and resources to enhance the quality of the educational experience" (Penn State Strategic Plan). The programs described above are excellent ways to improve Penn State's infrastructure and excellent ways to enhance student learning and the quality Penn State

already provides. Research supports ideas that experiential learning is significantly more effective and longer lasting than classroom learning (Reese, 2011).

4.1 | PENN STATE ADVISING

Knowledgeable advisers are an important part of adapting Penn State's structure to handle such experiences. They are crucial in allowing students to pursue experiences that may conflict with their degree. Especially when a student has a very tight schedule, an adviser needs to know when he or she might be able to use classes that do not appear to count towards their degree even if a specific class was not fulfilled, the student learned something that was within the context of the required material. Such class substitutions may not apply for an upper level mass flow class, but may be more appropriate for counting higher level classes outside of a student's major towards general education. Of course, it is possible that the student learned mass flow fundamentals very thoroughly while working at an internship or other experience that required the student to use that knowledge every day.

4.1.1 | Shortcomings of Penn State Advising

Through various interviews with management in the university it was found that advising is often not as effective as it could be (Furman, T. (2014, February 11). Personal interview, Jones, N. (2014, April 16), Email Interview). Whether advisors are not educated enough to help their students navigate university infrastructure or they simply do not have the time, students are often not aware of the opportunities that are available to them. The ability to take upper-level classes to explore one's major (even without all of the pre-requisites) or to take an upper-level class outside of the major and to downgrade it to a general education requirement are two examples of important opportunities that are not advertised to students.

Appropriately, advising is one of the goals of the university in its strategic plan as this is a major area for improvement. Specifically it states that:

> *"Students continue to have uneven experiences with advising, and the University must revisit—program by program—the ways in which we provide relevant information, the involvement of the faculty in the advising process, and how to best engage students and encourage them to take ownership of their educational experience. All First-Year Seminars or related first-year experiences should assist students to articulate their own statements of personal academic goals" (Penn State Strategic Plan)*

For many reasons, the strategic plan targets advising for improvement. Some students receive superb advising from very knowledgeable advisers and some students are assigned to uninterested, unmotivated, and/or unknowledgeable advisers. Between departments, advising may change. One culture may allow many course substitutions while certain departments might demand that you take all of the courses exactly as they are. Even within departments, some advisors may be more knowledgeable than others. There are many potential solutions to these issues, including advisor education classes and adviser-student assessments to identify which advisers may need help to attain their full potential as an adviser.

4.1.2 | Importance of Penn State Advising

Education for both students and advisors is going to be an integral part of encouraging students to take ownership of their educational experience. Students need to know about the opportunities that are available to them to explore classes that might seem not to fit into their schedule. Some of these classes are alternative education classes or engaged scholarship experiences as described above. Integrating these into the curriculum will be an excellent way to allow for more engagement by the student. This process will be facilitated by the advisor, who

has a key role in providing a gateway for students who want access to some of the best that the university can offer.

The advising system is a staple of the university, but may prove as a barrier to students' ability to participate in experiential learning (and graduate in the expected time). It is a necessity to allow class substitution if we expect students to participate in these programs and graduate on time. The advising system communicates with students to allow them to fulfill requirements of their degree and other academic/career/personal goals concurrently. Students need to know that they have these opportunities as options, and how they can fit them within their schedule.

4.1.3 | Advising Policy

Advising: For all the reasons listed above, Penn State advising needs to be more consistent, so that students get the most out of their education. Specifically, two policy changes are in order:

1. **Adviser Training:** Advisers should be required to take a class that teaches them necessary information, along with suggestions on how to engage students in creating their own degrees. Advisors should encourage their students to pursue options that do not conform to the degree plan laid out for them. Advisers should also encourage students to pursue academic/career/personal goals and to personalize their education in order to do so.
2. **Student Rating of Adviser Effectiveness (SRAE):** At the end of each semester, students should use a system much like the Student Rating of Teacher Effectiveness (SRTE) to anonymously rate their advisers. This system is used to rate instructors in the rest of the university. Implementing this policy would have two purposes; it would allow advisers to see what areas in which they can improve and it would allow university intervention in

situations in which they are not completing their goals. Intervention might come in the form of additional training classes.

4.2 | QUALITY ASSURANCE

One of the biggest potential challenges with a student-driven method of education is assessment of quality of education. While experiential learning is shown to be a much more effective method of learning, its effectiveness is contingent on the legitimacy of the experience.

4.2.1 | Importance of A Quality Assurance Program in Alternative Education

A quality assurance program for experiential education needs to be standardized. A large part of the process is accountability. Students should be accountable to a faculty/staff member whose job is to assess learning in the experience. If course credit is granted for an experience, however, stricter guidelines might be necessary. One viable option is to give students proficiency exams in the pertinent subject when the credits at hand are associated with hard skills such as math or writing. Another option of assessment is to evaluate students through end of semester reports or portfolios submitted to the faculty/staff member in charge of overseeing the project. Depending on the circumstances of a given situation, either or both options could be employed.

Additionally, immersive learning experiences might be combined with seminars or online classes. This can improve a case for course substitution and provide skills necessary for the immersive learning experience to be effective.

Quality assurance provides the backbone of alternative education, adding immersive learning to the Penn State reputation and ensuring that material is learned during the experience.

4.2.2 | Quality Assurance Policy

Ensuring Quality through Faculty Engagement: Each immersive learning experience has a faculty/staff member to oversee the experience and ensure quality of education. Students would be required to communicate with faculty/staff member in the form of:

- **Periodical reports:** The student will communicate with the faculty adviser periodically in the form of a report, detailing the tasks performed and including a reflection on what the student has learned. This may be documented in the form of a blog.
- **End-of-semester report:** This report is a reflection on the entire immersive learning experience, summarizing the outcomes of the project and what was learned throughout the semester. The report should also include a portfolio containing the students' work throughout the semester.
- **Credit substitution:** In the case where the student wishes to receive credit for a course, sufficient proof of the fulfillment of the course requirements should be demonstrated. Course equivalency forms should be completed or exams should be given to ensure learning in all necessary course objectives. Fulfillment of requirement should be clearly demonstrated by end-of-semester report and accompanying documentation.
- **Requirement petition:** In the case where a degree requirement is waived, the necessary petitions should be filed so that the immersive learning experience can count towards the degree of the student. Fulfillment of requirement should be clearly demonstrated by end-of-semester report and accompanying documentation.

4.3 | PROGRAM IMPLEMENTATION

There are two recommended options to recognize student achievement and implement alternative education into Penn State infrastructure:

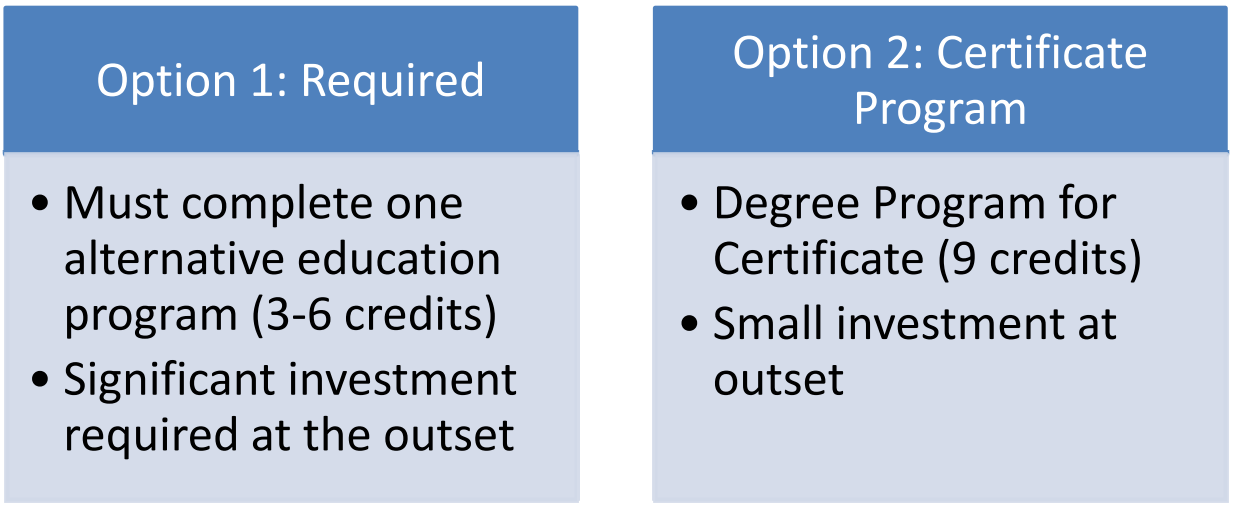
4.3.1 | Option 1: Degree Required

Experiential Learning is undoubtedly valuable to all students. All students should be provided these experiences. To achieve this, each student should be required to participate in at least one form of immersive learning experience. A credit requirement of three to six credits is suggested. This would allow all Penn State students to experience immersive learning by becoming involved alternative education. This would, however, require a large upfront cost by the university.

Requiring immersive experiences would distinguish Penn State students from those at other institutions by ensuring that each one has experiential learning built into his/her degree. Because experience is becoming increasingly important, immersive and experiential learning is necessary for students pursuing employment or graduate school.

4.3.2 | Option 2: Certificate Program

A certificate program should be created that allows students to earn nine credits of immersive learning and receive a certificate upon graduation. Rather than require all students to complete an alternative learning experience, this program would reward students with such ambitions. Because not all students would be participating in alternative experiences, this option will require less funding.



4.3.3 | Reason for Giving Two Policy Suggestions

The university may choose either structure to include alternative education at Penn State, depending on an analysis of the associated advantages and disadvantages. It is recommended, however, to implement both options, beginning with Option 2. This would provide a transition period to introduce alternative education into the university before participation becomes required, and would allow the university to build the necessary infrastructure to handle quality assessment and advising changes before large scale implementation is necessary. Next, the degree requirement for 3-6 credits of alternative education experience should be implemented within a small sample of Penn State students, such as the Schreyer Honors College, allowing the program to start small. These students already take part in many immersive experiences, and therefore are a prime testing sample for this policy. Depending on the success and student and faculty response, the university administration may then decide whether or not the implementation of such a requirement is necessary, feasible, or in the best interest of *all* students.

This implementation plan would allow the immersive learning program to grow organically throughout the university and to gather reputation as it goes. The program's

reputation will bring more students to the program and more interested employers/graduate schools. Additionally, the implementation plan provides a transition period for the university infrastructure with minimal risk associated with its creation and expansion.

4.4 | IMPACTS OF ADVISING AND QUALITY ASSURANCE

The implementation of these advising and structural policies will make for a comprehensive alternative education experience. Penn State already has a flourishing immersive learning culture, but these advising and quality assurance policies will better institutionalize and integrate them to ensure their permanence and prominence in academic culture. Furthermore, these improvements will make the advising programs at Penn State more robust in addition to maintaining the key structure that will support alternative education. In conjunction, quality assurance policy will give each form of alternative experience the reputation it needs in order to live up to the Penn State reputation.

Section V:

Conclusion and Works Cited

5.1 | CONCLUDING REMARKS

This policy brings revitalization. Educational standards improve and update as values are refined. Teaching practices should be as dynamic as the values they promote, but the static nature of conventional methods does not reflect the ideals of a well-rounded education. For years now, the traditional mindset of the teacher as master, lecturing to a classroom full of passive, docile students absorbing his lessons, has characterized the traditional approach to education. But educational values include so much more:

This policy embraces the autonomy of the student. It allows one to define the direction in which he or she wishes to drive the degree. It adjusts the current infrastructure to allow such a curriculum that lets students learn by means other than the traditional passive setting. Thus students are engaged in their learning, and are motivated by their own drive.

This policy promotes diversity of experience. A wholesome education extends beyond the classroom of one's isolated area of study. Learning experiences should not be limited to just the checklist of classes required to earn a degree. By engaging in alternative education, students can pursue a unique curriculum of their own design, and develop the skills and qualities that bring their educational experience and personal growth to fruition.

This policy fosters active learning. A robust education includes more than just studying from a textbook; it should encourage critical thinking, problem solving, curiosity, creativity, and innovation. All of these values and more can be cultivated through experiential learning and granting students the freedom to engage themselves in such an experience.

Alternative education upholds the three core values of the wholesome learning experience; students will enjoy autonomy in education, diversity of studies, and active approaches to learning. These are the elements of a well-rounded college experience that the

policy effectively meshes with the traditional model. It is through this experience that students will both design a customized degree to fit their unique needs, strengths, and interests, as well as acquire all components of a diverse and robust education.

This policy is for the student.

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