1. What I have learned about teaching entrepreneurship: perspectives of five master educators

Dan Cohen, Paul Jones, Jerome Katz, Jeffrey Pollack and Rebecca White

INTRODUCTION FROM CHARLES H. MATTHEWS AND ERIC W. LIGUORI

As editors, it is our privilege to serve the USASBE community by coordinating the assembly of this biennial volume showcasing the high-impact scholarship and pedagogy of so many talented individuals. While we are inspired by each and every entry in this volume, a true highlight is the thoughtful reflections which follow, where five master educators share their thoughts on the question, “What I have learned about teaching entrepreneurship.” Their perspectives are insightful and inspiring; challenging us all to do better. Moreover, they illustrate the collective passion that exists within the USASBE community for what we are charged with doing every day – inspiring the next generation of entrepreneurs. Many of these contributions were written during the 2020 COVID-19 pandemic, the largest mass intervention on education (and entrepreneurship education) ever experienced (Liguori & Winkler, 2020). As such, these contributors rose to a special challenge; one where they had to balance deep reflection over many decades of cumulative experience against a very different look and feel in their classrooms today that could not have been predicted even three months earlier. They did this knowing that for this contribution to be useful it also needed to help inform the future, one that may be very different to what we have experienced in the past or are experiencing now. What follows from these five master educators is thought leadership in its most pure form. We thank Dan Cohen, Paul Jones, Jerome Katz, Jeffrey Pollack, and Rebecca White, as well as the ten individuals who have contributed to answering the same question in prior volumes (viz., Heidi Neck, Jerome Engel, Minet Schindehutte, Ray Smilor, Bill Rossi, Bill Aulet, Andrew

Hargadon, Luke Pittaway, Candida Brush, and Sharon Alpi), for their vulnerability, candor, and passion for entrepreneurship education.

DAN COHEN

I am honored to share my thoughts on what I have learned about teaching entrepreneurship over the last 15 years. Since I transitioned to academia from a career as an entrepreneur, I have had the good fortune to teach and conduct research on entrepreneurship at three excellent, albeit different, universities during my career (Iowa, Cornell, and Wake Forest). I've had varying roles at each institution (teaching at Iowa, teaching, researching, and venture creation as founder of Cornell's eLab Startup Accelerator program, and teaching, researching, and leading the program at Wake Forest). As I think about my experiences at these institutions and the differing roles I played as a faculty member, some common themes have emerged throughout my career which I believe are worth sharing.

Focus on Skill Development Rather Than Traits

Research indicates that entrepreneurs possess certain skills and traits. Traits such as the need for achievement, tolerance for risk, and tolerance for ambiguity are certainly valuable for entrepreneurs to possess. However, traits are hard to alter. Skills, on the other hand, can be vastly improved. In my experience, three key skills are vital for developing nascent entrepreneurs: ideation, passion for entrepreneurship, and learned optimism. These three skills are important because they are conduits to building resilience—in my opinion, a key to negotiating the entrepreneurship experience. Taken together, skill development also helps nascent entrepreneurs form an entrepreneurial identity. While critics of entrepreneurship education may deem us somehow “less than” because our discipline is skill-based rather than purely theoretical, I embrace the practicality of our field and am quite passionate about developing skills in my students that they will use throughout their careers.

IDEATE

I developed a method of teaching ideation called IDEATE and have presented this method at conferences in recent years. When I present IDEATE, I ask fellow entrepreneurship educators how they go about teaching ideation in the classroom. At one teaching-oriented conference, approximately 100 professors attended the session. When I asked how many taught a course with an ideation component, about 80 hands raised. When I asked if they felt underwhelmed by the quality of their students' ideas, almost 100 hands went up! When I asked

their methods of teaching ideation, two approaches were mentioned most frequently. One was to ask students to keep a log of problems encountered in daily activity and then brainstorm possible solutions with classmates and the second was to assign students the task of generating their own ideas, which they would bring back to the classroom. Experienced entrepreneurs rely on pattern recognition—the constellation of domain expertise, industry experience, and a robust professional network to create ideas (Baron, 2006). Student entrepreneurs do not typically have any of these resources to draw upon (Hägg & Kurczewska, 2018). By focusing on their own problems or lives, ideas are often generated which are myopic and reflective of college students' experience; ideas we have all encountered such as the app that tells us when the laundry machine is available, or if the gym is crowded, or the coffee service that delivers to class.

There are many issues associated with developing ideas that are not so valuable. First, on some level, the students know that the ideas are not so great and they often “go through the motions” of customer discovery and experimentation when seeking to validate their ideas. “Going through the motions” is not typically a good prescription for most entrepreneurial endeavors. Nor is it a good behavior to teach students. Second, these ideas often identify problems of a minor inconvenience rather than real migraine headache problems and, as such, prospective customers are less likely to be concerned about solving the problem. Third, and potentially most damaging, is that poor-quality ideas usually do not get any meaningful traction in the market and this can lead to nascent entrepreneurs concluding that they are not “cut out” to be entrepreneurs. In truth, this may not be the case at all—they may be working with a poor idea—however, they can easily reach this conclusion. This might explain why research findings show that most nascent entrepreneurs do not become entrepreneurs.

The above issues led me (ably partnered by colleagues Greg Pool and Heidi Neck on the IDEATE book published recently by Sage, and by Dan Hsu and Rachel Shinnar on the IDEATE academic paper published recently in *Small Business Economics: an Entrepreneurship Journal*) to create the IDEATE method, an empirically proven method that helps students spot, evaluate, and select high-potential venture ideas. IDEATE is an acronym. Identify teaches students what makes ideas valuable, Discover focuses on where to find valuable ideas, Enhance teaches how to make good ideas even better, Anticipate focuses on how change is the progenitor of new ideas, Target helps entrepreneurs answer the question “to whom am I selling and why should they buy from me,” and Evaluate teaches entrepreneurs how to select the highest potential idea. Armed with better-quality ideas, students are more likely to engage in customer discovery to validate their ideas more robustly. Students

who believe in the ideas on which they are working are significantly more engaged in the classroom.

Unleash Their Anticipatory Passion for Entrepreneurship

Passion for entrepreneurship has been a hot topic in literature over the past ten years. It makes sense because passion drives sustained effort and helps entrepreneurs persist when adversity inevitably occurs. Passion for entrepreneurship is an intense desire or longing to engage in activities (in this case entrepreneurship) that are meaning to the self-identity of the entrepreneur (Cardon, Wincent, Singh, & Drnovsek, 2009). In a sense, you cannot separate the venture from the venturer, which explains why entrepreneurs persist. They quite literally would be quitting on themselves. I, along with co-authors Jagdip Singh and Melissa Cardon, am currently finalizing a study on how passion for entrepreneurship develops and what causes an entrepreneurial identity to form (Cohen, Cardon, & Singh, 2019). In this study, we examined nascent entrepreneurs using a longitudinal design, curious to see how passion and role identities relevant to entrepreneurship are formed. Each week we would collect data immediately after entrepreneurs met with their mentors and garnered feedback on the previous week's progress and then set goals for the coming week. Sometimes the feedback is positive and encouraging, while other times the feedback can be negative and discouraging. Without delving into too much detail, the feedback the entrepreneurs received from mentors mattered significantly to the passion and identity formation (or not) of the entrepreneur. When passion formed (it did not in all cases), it had a significant effect on other important outcome variables. We, as faculty, along with prospective customers and investors are "meaningful others" and, as such, we play a strong role in potentially validating or invalidating nascent entrepreneurs' emerging passion and identity (Markowska, Härtel, Brundin, & Roan, 2015). As such, in addition to giving specific advice and feedback on how to best develop their current venture, we should also be talking to them more broadly about skill development, strengthening their entrepreneurial mindset, and socializing them to the field of entrepreneurship. We should go beyond just providing tactical feedback regarding their ventures (which is important) and realize that we are nurturing the next generation of entrepreneurs by talking about things that are salient to their overall development as budding entrepreneurs.

Help Them Become the Eternal Optimist

Optimism is an important skill for nascent entrepreneurs to develop. I admit that I began reading Martin Seligman's great work to help teach my children to be more optimistic. After I learned of the important results Seligman had

found about optimism's positive effects on anxiety and depression, I incorporated it into my teaching. I gave my students the Entrepreneurial Mindset Profile and was surprised at the pervasiveness of pessimism that existed among them. This cemented the importance of incorporating optimism into my teaching. I recently collected data on an experiment designed to test the efficacy of optimism as a mechanism to overcome the fear of failure. We have not yet analyzed the results, however, and as a sneak preview of coming research, we believe that optimism helps nascent entrepreneurs frame adversity (failure) in a healthier, less personal, and less permanent manner. Further, we predict that optimism helps nascent entrepreneurs frame failure in a way that preserves their budding passion for entrepreneurship and perceived fit with an entrepreneurial career. Here are some key differences, gleaned directly from Seligman's work, which differentiates optimists from pessimists when it comes to handling adversity (Seligman, 2006).

Humans have an explanatory style to make sense of adverse happenings in life. Three continuums help frame explanatory style:

1. Permanent to Temporary (pessimists think adverse situations are permanent while optimists think they are temporary).
2. Pervasive to Specific (pessimists believe adversity will impact many situations while optimists think the adversity will only affect a few situations).
3. Personal to Impersonal (pessimists think they are the cause of the adversity and optimists tend to think other people or circumstances caused the adversity).

Two mechanisms that can turn pessimistic thinking into optimistic thinking are distraction and disputation. Pessimists tend to focus on the worst-case scenario outcome, despite the knowledge that it is a low-probability outcome. Distraction can be an effective tool to switch focus away from worst-case thinking. Disputation, according to Seligman, is more effective (Seligman, 2006). Disputation occurs when one looks for evidence to dispute their worst-case scenario thinking. Specific to entrepreneurship, optimism is the belief that things will turn out well in the future. Entrepreneurship is uncertain, challenging, and chock full of adversity. Optimism is a skill that can help nascent entrepreneurs proactively frame challenges in order to handle adversity in their stride. On the other hand, pessimism, according to Seligman's research, leads to giving up and a lack of resilience. While admittedly in a very early stage of inquiry, I believe that learned optimism is a mechanism for coping with failure, for developing resilience while enduring challenges, and for mustering up the courage necessary to pursue an entrepreneurial initiative—whether it be starting a venture, solving a social problem, or simply being entrepreneurial in a larger organization.

Conclusion and Some Thoughts on the Future of Entrepreneurship Education

To recap, I have learned over my career that strengthening key skills of ideation, passion for entrepreneurship, and learned optimism has yielded lasting value for my students. I believe these particular skills are important because they foster resilience. I also know from my research that strengthening these skills aids entrepreneurs in developing an entrepreneurial identity.

From a philosophical standpoint, I have used two guiding principles throughout my academic career that have served me well and I will share them here. One is to practice what I preach. I teach my students about evidence-based entrepreneurship and experimentation. I practice that by creating new teaching methods and ways to build skills in my students. I also practice by experimentation and by subjecting new methods to rigorous empirical testing and the peer-reviewed journal process. This helps me share my methods with able colleagues around the world. I also practice what I preach by continuing to engage in entrepreneurial endeavors. The second is to remain true to my entrepreneurial roots. I started as an entrepreneur in my mid-20s by co-founding a startup and building up for a successful exit 15 years later. When I create a new teaching method or write a book, or conduct a peer-reviewed study, I ask myself if entrepreneurs would be interested in the topic. Would it capture their interest enough to make them want to sacrifice their precious time (entrepreneurs are busy!) to read it? Keeping in touch with my entrepreneurial roots has always served as a barometer for me whether it be in determining the value of a new line of research inquiry, the creation of a new teaching method, or the building of a new program.

I conclude with a challenge to the field. Most programs, including mine at Wake Forest, tout that we help our students develop an entrepreneurial mindset. There are a few issues, in my opinion, with this proclamation. First, as much as an entrepreneurial mindset is talked about, it is not so well studied or understood. Therefore, the first challenge is to know more about the entrepreneurial mindset. The second is that if we tout it, we should vigorously assess and test whether or not we are developing an entrepreneurial mindset. This is one reason why I have completed or am working on completing empirical studies on ideation, anticipatory entrepreneurial passion, and learned optimism. I encourage all of my colleagues to join me in researching the entrepreneurial mindset and its antecedents to test whether or not we are helping develop an entrepreneurial mindset in our students.

PAUL JONES

To reflect on the question “What I’ve learned teaching entrepreneurship” is particularly challenging when one considers the current global Covid-19 pandemic and its likely impact on the higher education sector and national economic performance globally. The pandemic and its short-, medium-, and long-term impacts are likely to have significant implications regarding how we teach entrepreneurship in coming years. Practically overnight, all universities have changed their pedagogical delivery model to an online-only strategy. This has enormous implications for the entrepreneurship discipline, which has evolved towards an experiential practice-based student experience. Now the entrepreneurship discipline must effectively embed an e-learning pedagogy into its teaching delivery and potentially move away from experiential elements of its previous delivery at least in the short term. There are also significant implications for graduate startups in specific industries which may no longer be viable entities in the short term due to the lock down enforced by the virus. To survive, the entrepreneurship discipline must rapidly adjust, evolve, and disseminate best practice across the sector.

I can reflect on my 28 years of experience in the education sector and the entrepreneurship discipline. I offer multiple perspectives to this reflection as an entrepreneurship educator, an active researcher, and as journal editor of the *International Journal of Entrepreneurial Behavior and Research*. When I began teaching in the further education sector in the early 1990s, entrepreneurship was an afterthought with limited consideration in the academic curriculum. Delivery and assessment typically took the form of the development of a business plan without any attempt to test or implement its value. However, over the last two decades in the United Kingdom (UK), this gradually changed with the evolving nature of the employment market, technological evolution, and the decline of the public sector realizing the requirement for more business startups. Societal attitudes towards entrepreneurship have also changed in the media with entrepreneurs becoming widely recognized and regarded as “economic heroes” with programs such as *Dragons’ Den* and *The Apprentice* encouraging entrepreneurship career choices. This trend has also been reflected globally with a gradual and now increasingly accelerated move towards embracing entrepreneurship education in the higher education sector. The exception to this is the United States, which has been at the forefront of entrepreneurship education for several decades.

Since the early 2000s, the delivery of entrepreneurship has proliferated both in UK universities and globally. In many countries, for example Nigeria, this is driven through necessity with endemic graduate unemployment levels driving the need for change. I have been fortunate enough to work in several UK

universities, plus deliver entrepreneurship programs and training throughout Europe and Africa. I have witnessed, and I hope supported, the evolution of entrepreneurship programs and pedagogy. Initially, there was a belief that one could simply teach entrepreneurship to hundreds of students in traditional ways (e.g., through traditional lectures and seminars). This rapidly proved a fallacy. Whilst students typically wanted to study for entrepreneurship modules only a minority wanted to pursue a dedicated entrepreneurship program and fewer still undertake a startup. In recent years, there has been a significant growth of experiential non-traditional programs and modules including the team enterprise degree with no formal curriculum delivery, two-year venture creation degree programs, and use of information technology software for modelling business simulation. In the UK, sector-wide change for an entrepreneurship curriculum has been recognized by the development of quality assurance Enterprise and Entrepreneurship¹ guidelines. This has included the definition of key variables such as entrepreneurship and enterprise and the clear discernment between what constitutes these behaviors. Thus, UK educators can now effectively design entrepreneurship programs with the appropriate design and content. This has been mirrored in Europe with the development of the Entrecomp² framework which has been designed to act as a reference for any initiative aiming to foster entrepreneurial capacity of European citizens and used for the development of curricula and learning activities enabling entrepreneurship as a competence. I reflect on the requirement for entrepreneurship programs having to justify their value and existence more so than any other academic discipline in terms of enabling viable business startups. I call on colleagues to evaluate the impact of their provision with rigorous cross-institutional longitudinal research. In the age of social media, we can track our graduates' progress long after graduation. Such evidence is required to provide validation for our discipline.

Alongside the development of an entrepreneurship curriculum has seen the widespread creation of university entrepreneurship ecosystems. This is a recognition that an entrepreneurship education curriculum alone is not sufficient. Typically, these include creating a culture to enable entrepreneurship behavior within the university including incubation facilities for business startups, financing for business startups, capture of intellectual property, creation of entrepreneurship centers to enable research and income generation projects and cross-university curricula. There are several stories of successful examples of entrepreneurship ecosystems in the UK such as Coventry, Leeds, Strathclyde, Lancaster, and Swansea universities. However, there are also several instances of closure of entrepreneurship centers and educational programs whereby institutions have lost patience in the immediate returns achieved. As noted previously, dedicated venture creation programs require high levels of student support to enable successful graduate startups. Venture creation programs

should seek to select elite graduate students suited to entrepreneurship career choices. Such programs require relatively small cohort sizes and specialist student support. A further issue is the location of entrepreneurship education within the university and that business graduates are not necessarily the ideal candidates for an innovative startup. This has resulted in entrepreneurship being offered across the university to capture potential candidates with different skills and knowledge. As both a researcher and teacher, I reflect on the need to further research this issue. Entrepreneurship education needs to learn and embrace best practice from a range of disciplines, for example, use of design thinking in the construction of its pedagogy.

A further trend has seen the emergence of specialist ecosystems focusing on specific forms of innovations such as medical technologies or technology-focused startups. I believe the specialism and identity of entrepreneurship education is important. The headlong rush by many countries to embrace entrepreneurship offers the threat of creating homogenous ecosystems and universities that are not differentiated across a country. I would describe this as a “vanilla”-flavored approach. The danger of vanilla entrepreneurship education is the creation of low-value graduate startups with minimal chance of long-term economic viability. My preference would be for each university to create an ecosystem that supports particular entrepreneurship activity, for example, technology entrepreneurship, tourism entrepreneurship, etc. In this way, individual universities could create specific and specialized ecosystems that truly enable effective startups that support the requirements and needs of the local community that the university supports. I also reflect on the need for social enterprise to be used to support disadvantaged communities. Universities must lead such initiatives and embrace environmentally sustainable business startups that enable sustainable and localized supply chains. There is a clear need to work with local and national governments to enable long-term change and create more entrepreneurship identity for communities which the university supports.

The growth of the research community supporting entrepreneurship has been dynamic with the emergence of entrepreneurship-learned societies and communities globally such as Babson, International Council for Small Business, USASBE, European Council for Small Business and Entrepreneurship, and Institute for Small Business and Entrepreneurship. As a journal editor, I have tried to facilitate this growth by increasing the number of published issues and manuscripts annually within the *International Journal of Entrepreneurial Behavior and Research*, whilst seeking to maintain quality. I reflect on the need for the entrepreneurship discipline to continue to grow and prosper. In terms of the number of academic journals, there is a necessity for further journals to emerge and grow. The entrepreneurship discipline remains a poor

relation in terms of number of available journals in comparison to virtually all other business disciplines.

In conclusion, I refer back to the current situation with the Covid-19 pandemic. The entrepreneurship discipline must in the short term rapidly reposition itself to absorb the changes that this will bring on the student experience. The use of virtual learning environments embellished with business stimulation software and synchronous media such as Zoom must be rapidly embraced to reflect the new reality. In the mid-term, I urge universities to work with local and national policy makers to develop entrepreneurship activity that supports the locality and provides an entrepreneurship identity to the region in which the university operates. I urge all entrepreneurship educators to reflect on the teaching and academic practice and seek to report the value that they create in their communities. In the long term, I urge the entrepreneurship discipline to continue to grow but in a responsible manner to reflect the requirement for environmental sustainability and social enterprise that supports all communities.

JEROME KATZ

Entrepreneurship's appeal is universal because it can offer people a path to better ways to do things or live—what Saras Sarasvathy (2012) calls world-making. In the midst of the worst situations people face, entrepreneurship is often one of the first seeds of hope to be planted. I grew up in a community of Second World War concentration camp survivors from Europe, and for almost all of them the American Dream included a place free of hatred and a business of their own.

Teaching at Wharton in 1985, my office was 2 miles from a poor neighborhood where 60-plus homes burned down after a police bombing (Demby, 2015; Norward, 2019). Within a week a few professors from local colleges were running programs in the devastated community. I was part of a program helping residents find entrepreneurship opportunities. In 1993, in the months before the signing of the Oslo Accords ending the First Intifada, I was in a trailer in the no-man's land between Jerusalem and Bethlehem teaching how to organize bi-national sales (Katz, Hazboun, & Toren, 1995). In 2014, as the first wave of the Ferguson Protests were happening at night, I joined others a few hundred feet down the street to teach entrepreneurship in the afternoons at a local church.

As other contributors to this series in *Annals* have pointed out, teaching our classes in colleges and universities is a remarkable privilege, one of tremendous importance. But given that universality, which I believe is real, there is an even larger calling for us, and that is to teach to the larger world outside of our classrooms. That is such a broad mandate, I can readily imagine those of you

reading this might find the prospect daunting, but it's actually easier than you think and closer than you might imagine. Let me share my thoughts on how, what, and where to do that.

How: Advice for Potential First-Time Speakers

If you find yourself asked to speak to a group of entrepreneurs, potential entrepreneurs, or just people seeking some insight, always follow Adams' (1979) universally acclaimed advice, "Don't panic." The skills you've used in the classroom still work. Perhaps unexpectedly, your freedom in pursuing a public lecture, seminar, workshop, or class is even greater than what you face (or imagine you face) in the classroom. Even having experience with TED talks, people can still get entranced and excited by a remarkably broad range of topics and styles. So, consider the following basics.

Know your audience

Find out all you can about the potential audience members. Ask about major subgroups. Ask about what they've responded well to in the past. Run your ideas by the host. My worst speech ever was a talk I gave in Stockholm where I focused on ethical techniques for obtaining financial information on private businesses. The applause was ever so polite, but I knew I blew it. I asked my host, and he explained that in Sweden at that time, tax returns were public records, so any entrepreneur can see their competitors' actual tax returns. Who knew? The Swedes did, but sitting in St. Louis, I didn't. Think of it as the speaker's version of the customer discovery process.

Keep it simple

Aim for no more than three ideas in a talk. My colleague Patricia Bagsby sets a tough bar for public talks—any idea has to be explained in 100 words or less. Think in terms of take-aways like a tweetable moment or image, a catchy meme, phrase, or acronym as a great goal for any idea you want to have live past the talk. Consider similes—Doordash is like Uber for food. Ideas should be simple enough that notes don't need to be taken, though if you're using visual models or slides, make them big enough to read and leave them up long enough for the most interested listeners to be able to snap usable pictures of the slides with their smartphones.

Know your voice and work it

Some speakers are at their best as the voice of authority. Others are storytellers. Some are preachers, while others are comedians. All of these, and a lot more styles, are completely legit. Knowing which style is the voice you are most comfortable with and able to easily bring the most energy to is what is

important to setting the tone and model of your talk. You are at your best when you're using your preferred voice.

What: Enduring Topics for Public Talks

There are a multitude of topics of interest to entrepreneurs in the field and those who support them. Many of them are variants of what we teach in our classes, while other topics can be truly different. Over the years some of the most enduring or recurring topics include:

- *How-to talks*: Teaching a basic skill in a few minutes is always appreciated. This can be something as simple as using Facebook's Audience Insights to get a sense of the size of markets with particular interests in a focused or national geography.
- *First-step talks*: When new to something, people look for an idea of the first steps on the path. This article is a first-step example telling the how, what, and where of public speaking in entrepreneurship.
- *What's new talks*: One of the things that makes our lives interesting is the constant array of new ideas we're exposed to. Consider sharing some of those like the [valuations.com](https://www.valuations.com) website which provides multiple ways to assess a company's valuation from general sales, growth rate, and industry information.
- *Best practices*: Academics are often the ones determining what are best practices, so your opinion is probably welcome, especially if you explain the hows and whys of the practice so others can understand and begin to apply it.
- *Heroes*: Academics have the power of anointment. Not just of best practices, but of best performers. When we say someone did exceptionally well in innovation, making money, giving back, or any of a hundred valuable contributions, people listen. Your former "C" student who had three failed startups, but persevered, made number four into a rousing success and has hired a hundred dropouts, and encouraged them to finish high school, hopefully knows she's done good, but a local professor who tells her story conveys a *gravitas* that garners the entrepreneur instant respect. You have the power to make heroes. Use it.
- *What's next*: Generating and observing new knowledge means you're positioned to know what's coming. Thoughtful entrepreneurs appreciate having a glimpse of the future and an idea of what to prepare for.
- *Hidden Gems*: While a graduate student, I astounded my father (an entrepreneur) when I used the RMA volume in the library to find the typical expense percentages for stores like his. He was shocked to know that sort of information was "out there" and available at most libraries. You proba-

bly have dozens of go-to sources to accomplish all sorts of business-related research. Share them.

- *Ecosystems*: In the old days we talked about local and government resources, but today those and the infrastructure of startup communities are called the ecosystem. Even with a grander and more encompassing name, few are as exposed to as many parts of the ecosystem as academics. Breaking down silos letting entrepreneurs know about the opportunities for help or giving back reflects the best part of your path of academic discovery.
- *Be a responder*: Consider doing a very short talk, like the story of a local hero or resource, and open the floor for Q&A where you can connect attendees to the people and organizations you know about. Where you don't know the answer, write down their question and their contact info (or that of the organizer), and when you get home, find them an answer. Ask your host to share the answer with the other attendees.
- *Telling the story of entrepreneurship*: Knowing the ecosystem, the heroes, the new and coming ideas, the relevant resources in academia and the Internet, and the troves of data available, you are probably uniquely positioned to be able to talk about the state and future of entrepreneurship in your locality and in the larger society and economy. Your opinion as to the strengths, weaknesses, opportunities, and threats of and to entrepreneurship is based on your continuing immersion in all the above, and your commitment to prepare the next generation of entrepreneurs. What you see and how you feel about it is important, and a lot of people around you want to hear that story about entrepreneurship today and into the future.

Where: Settings Entrepreneurship Educators Can Contribute

My first non-academic talk was in 1980 to a United States Department of Agriculture Extension Service conference in Gainesville, Florida, over 1,000 miles from my doctoral student office at the University of Michigan. Since then I've found myself asked to speak in all sorts of situations. Obvious examples include entrepreneur-focused organizations like the NFIB, Entrepreneurs' Organization, YPO, or Vistage, entrepreneur organizations focused on demographic niches (e.g., National Association of Women Business Owners, the Black MBA Association, newly arrived Syrian refugees, or local veterans organizations), or functional niches (e.g., GlobalHack, Inventors' Association, FFA, makerspaces, fashion designers, musicians, shared use kitchens), local chambers of commerce, the vast range of trade and professional associations (check <http://directoryofassociations.com/> for 35,000 to start with).

How do you find places to talk? Make the offer to the organizations you belong to, to your students, family, and friends, to the entrepreneurs you

involve in your classes. Let your department chair, dean, and alumni and development offices know you're willing to go out into the community. Offer occasionally on your social media accounts and ask your school to retweet it. Contribute a column or letter to the local press on a topic you think would be of interest.

Do not assume entrepreneurship is only for entrepreneurs. Over the past 20 years entrepreneurship has become a staple of leadership training. In fact, entrepreneurship is more universal than it has ever been. Managers in for-profit and non-profit situations want to know how to become sensitized to new opportunities, business models, and riding the waves of disruption. Topics like dealing with failure and sustaining passion over the long term which came out of entrepreneurship are now seen as relevant to nearly all organizations. With so many great new insights being developed by researchers and practitioners of entrepreneurship, there is likely to be years of opportunity to share entrepreneurship's message with the larger world.

Think beyond different groups, think different geographies. These days, the world beckons. Speaking to entrepreneurship classes and programs around the world is happening widely on a daily basis. I have keynoted in Brazil, China, and Croatia among other places and have loved every minute of those trips, maybe excepting that one Swedish talk, but even that trip taught me a valuable lesson.

Even knowing that, it seems to me more and more that the greatest need for our ideas is closer to home, just beyond our immediate neighborhood's or campus' borders. Rural America is facing the consequences of a half-century of increasing neglect and a steady drain of people (Acs & Malecki, 2004; Ajilore & Willingham, 2019). As economic inequality grows, poorer rural and urban communities everywhere are struggling harder than ever to find paths to economic, and even food, security, and I sincerely believe that the most enduring answers are those of self-sufficiency that entrepreneurship can provide. Given how hard structural change is, it often seems to me that the best path available to us as individuals in the face of daunting challenges is often that individual path, putting yourself, your head, heart, hands, and health (as 4-H taught me) to the task of making things better. And as entrepreneurship educators you are uniquely capable of doing that.

JEFFREY POLLACK

“Half the World Is under Stay-Home Order; White House Debates Face Masks”

I started writing this at the beginning of April 2020. The day I started, in particular, was April 3 and the headline in the *New York Times* was: “Half the

World Is under Stay-Home Order; White House Debates Face Masks.” This is what is on my mind today. I am thinking about the millions of people who filed for unemployment, many of whom are entrepreneurs, and who have seen their revenues disappear in a matter of days (Huddleston, 2020). Also, I am about to email students an article about how the Covid-19 pandemic will fuel the next wave of innovation (Mudassir, 2020).

It is with the pandemic as the milieu that I reflect on the potential value I provide to students. I am very honored to be considered a “Master Educator” in entrepreneurship and I am grateful to Eric Liguori and Charles Matthews for asking me to contribute to this volume of *Annals of Entrepreneurship Education and Pedagogy*. I will say that it is difficult, given the calamity of the Covid-19 pandemic, to consider myself a master at anything since everything we once did, personally and professionally (as recently as two weeks ago), is potentially outdated.

Here are some of my current thoughts, shaped by the question of whether, and how, I can create value with the students with whom I work given the backdrop of the Covid-19 pandemic.

Be an entrepreneur—the students are the customers

I email students ten days before any class starts. I send the following email to small undergraduate classes of 25 students as well as classes that have more than 400 students enrolled, to MBA classes with 45 students enrolled, to online classes I teach (some have more than 200 students), and to PhD students:

Hello and welcome to our class [insert class title] for the [insert term and year] semester! I am thrilled to work with you all and have tons I want to share. However, you are paying money to be in this class...so, I am an entrepreneur and you are my customers. Overall, I want to know what interests you most about this class. What can I do to enable you to get the most out of this experience? Call/email me anytime.
Best, Jeff

I list my cell phone number on the syllabus. I change the syllabus based on what students tell me they want to learn; and, I adapt to changes that occur during the semester—so, naturally, Covid-19 has been on my mind. Put simply, the “product” (i.e., my entrepreneurship class) that I started teaching this semester in January 2020 is going to end up being different than planned. Overall, the structure is the same—it was an online class to begin with, and so minimal change happened there. But, as the pandemic took hold, I pondered what students might need and made additional changes.

Everyone teaching anything from K-12 to college has had to change their classes in response to the Covid-19 pandemic. But, prior to the pandemic, I sought to adapt my classes based on constantly evolving student needs. That, in my mind, is one of the most important things I do—I think of myself as an

academic entrepreneur who pivots the product based on customer interests. Taking this approach, especially in the semester when the Covid-19 pandemic struck, has enabled me to better connect with the students—they know (and have known) from the beginning of the semester (i.e., before the virus shut down the world) that I will change the class as needed.

Enable the students to keep their eye on the ball

In the first class of the semester (or in the first activity of an online class), I ask the students to watch a video.³ Many of you may be familiar with this—it is a selective attention test in which students are asked to watch six people passing a basketball amongst themselves. The students try to count the number of passes that the people in white shirts make (half of the people passing have black shirts, half have white shirts). There is a correct answer to the number of passes, but that is not the point. The point is that the students focus so carefully on counting the passes that the people in white shirts make that they miss what's really going on—and, what's really going on is that, in the middle of the video, a person dressed up as a gorilla walks into the middle of the circle of people passing the ball, beats its chest, and then strolls off the other side of the screen. Most students who see the video for the first time do not see the gorilla. Then, when I replay the video, it is so amusing to see the students' reactions! This exercise has been replicated tons of times across classrooms all over the world, and it is described in a book by Chabris and Simons (2010) as well as in multiple journal publications (e.g., Drew, Vö, & Wolfe, 2013).

Put simply, I bring attention to the notion that students (and all of us) sometimes focus so intently on one task that we miss opportunities. I make the assertion that, even though we have to do tasks that are asked of us—e.g., by professors, employers, friends, parents—we should not lose sight of the bigger picture. For them, and for me, “keeping their eye on the ball” means focusing on the activities in the class I am teaching while also being cognizant of where they want to be in the future. I invite (and encourage and perhaps demand) them to use the class to help them reach their goals. Can they use the ideation portfolio we do in the class in the job application process as a point of differentiation? Can they use the customer discovery activities we do to help them in their current role at work (most of the students have outside employment)? Can they use the interview activity to get an introduction to someone with whom they want to work in the future? My most sincere hope is that they use the activities in the class to get closer to where they want to be in the future—simply put, I want them to do the activities in the class (i.e., counting the number of passes that the people in white make) while also making sure the class is useful to them (i.e., not missing the gorilla). I aim to create a class in which students envision their future (we do a Dreamlining activity that Tim Ferriss designed⁴) and they work towards making it a reality.

Be vulnerable—also titled “Professor finds out what a juul is”

It is tempting as a professor to act like you know everything. I know that being a professor puts me in a role that is very visible and the things that I say can influence how the students feel, think, and act. But, I have never felt comfortable with the “sage on the stage” approach (King, 1993). So, I share a lot about myself in my classes. I make it clear that I do not know everything. And, overall, I make myself vulnerable. Recently, in a class of 422 students, I was leading a class discussion on new technologies that disrupt industries and products. I asked for some examples and we talked about a few. One student yelled “juuls and vapes.” I asked for clarification and for an example—an “actual” example. So, another student in the back of the class (stadium seating for a large auditorium class) raised one (a juul) up in the air—so, I walked on up the aisle...and, he demonstrated it for me. The moment—much to my surprise was captured on Instagram (I found this out a week later) and it had gotten 230,000 views!⁵

My first thought was: “Wow, I am glad I did not do something any more embarrassing.” My second thought was to ask the students why the video seemed so compelling. Overwhelmingly, they said that it was fun to see a professor learn something and be willing to admit that it was new. We laughed and laughed some more and I shared with them that I learn as much from them as they learn from me. My approach here enables students to share things with me that they may not ordinarily share—and, it enhances my ability to create value for them in the class setting.

“Think and do”

“Think and do” is the motto at North Carolina State University. This resonates with me as a person as well as an educator—and, it serves nicely as a framework for what I do in the entrepreneurship classroom. Yes, we *think* about entrepreneurship, but we also *do* entrepreneurship. Everyone in all the classes I teach envisions and evaluates an opportunity to create value. My approach is rooted in the clinical model of entrepreneurship teaching and research that was described in an earlier volume of *Annals of Entrepreneurship Education and Pedagogy* (Pollack et al., 2018). Put succinctly, I aim to *engage* students with experiential activities. This serves to *embed* students in the startup community. This, in turn, helps students *execute*—achieve their goals more effectively and efficiently. For me, entrepreneurship classes are about where the students are now and where they want to go—it’s not about starting ventures, it’s about helping them approach the future more effectively and efficiently by identifying opportunities for value creation and being able to communicate those ideas to the right people.

Concluding Thoughts

Right now, there is tragedy all around us, and all focus seems to be on that (remember the people in white shirts passing the ball). Yet, if we also notice other things (remember the gorilla), we can also see opportunity (and hope). So, I did send the students (via email) an article about how the Covid-19 pandemic will fuel the next wave of innovation (Mudassir, 2020). Everything is different now. And, I hope the students see that—both the tragedy, and the opportunity and hope.

Overall, my most sincere wish is that students—my customers—find value in the classes I teach. My approach to teaching entrepreneurship, in short, is as a vulnerable academic entrepreneur who wants the students to use the class to reach their full potential. As I reflect on the value I create with the students, in the midst of the Covid-19 pandemic, I am grateful that I am able to pivot, as needed, and make the product (the class) valuable in such a difficult time.

REBECCA WHITE

As I considered the content for this brief section, I was reminded of a coffee mug I purchased a few years ago on a visit to the National Gallery of Art. I seldom purchase items in museum stores, and never buy coffee mugs, but this one spoke to me. It had a simple quote—“I am still learning,” attributed to Michelangelo. What I love about this short sentence is that it sums up most of what I believe about education in general and entrepreneurship education specifically. That is, an education is transformative in that it provides the foundation for lifelong learning. And, since I also believe that learning is at the core of the entrepreneurship journey, the goal of an entrepreneurship education is first and foremost to help students develop the skills associated with being effective and efficient learners.

What does the goal of preparing students to be lifelong learners mean? For me, like the quote, I am still learning and probably the most important lesson I have gotten is that in order to remain relevant and to provide my students with the tools they need to succeed, I must remain open and humble. Since change is constant and inevitable, what I have learned will likely be at least somewhat modified before this goes to print. However, I have been asked to share some lessons I have gleaned through the years, and so I will.

Entrepreneurship Competencies

I have long believed that opportunities to study entrepreneurship should not be limited to business majors. In fact, my focus from the late 1990s has been to bring entrepreneurship to students across campus. I quickly found that

while this provided great opportunities for innovative outcomes, it led to challenges in the classroom. With this model, the fact that students do not enter the classroom at a common level of knowledge and that they will not leave with the same degree of mastery is often magnified. Moreover, if students are learning through both classroom and co-curricular experiences, how do we assess learning? As I considered the dilemma of how to assess learning, I then began to consider what it means to be a graduate of entrepreneurship. What should our students know, demonstrate, and be able to do with a degree in entrepreneurship? I found that when I looked a bit further, our discipline had not satisfactorily answered that question and so I looked around to see what I could learn from other fields and found the concept of identifying and measuring competencies. The length of this section does not afford the opportunity to elaborate on the application nor the full content of a comprehensive entrepreneurship competency model. However, for the purpose of this piece it is important to at least note that the application of a competency model to courses and programs allows for a design that can measure whether students are gaining knowledge, experiencing application, and, in some cases, developing mastery of subject matter.

Opportunity Exploitation

Entrepreneurship is also a verb. Successful entrepreneurs take the steps required to exploit an opportunity. If our goal is to prepare nascent entrepreneurs, then entrepreneurship courses and programs must include the opportunity for students to develop business acumen. These topics should include, at a minimum, the study of business models, resource acquisition, finance, leadership, business law, marketing, strategy, operations, and sales. However, I believe the study of these business topics is necessary, but not sufficient.

Opportunity Recognition and Creative Problem Solving

When I first began teaching entrepreneurship, most classes were focused on how to execute on a business concept. While this is important, I found that students who had a meaningful opportunity to which they could apply their studies were more engaged and, therefore, likely to learn more. Yet, I would often have students who had not yet gathered enough life experience to be able to recognize an opportunity. They didn't know enough about any industry or the world around them to generate feasible business concepts. Thus, I realized that entrepreneurship programs cannot start at the point of customer discovery or validation, they must begin at the creative problem-solving level. When students realize that opportunity exists in virtually any problem, and they develop skills associated with creative problem solving, they can begin to generate

viable business opportunities. This process starts with requiring students to do the research necessary to understand themselves and the context in which they exist. In addition to business acumen, entrepreneurship education must include the skills associated with gathering raw material (conducting research) and creative problem solving.

Intellectual Honesty

Over the past 25+ years I have had the chance to learn from many of the pioneers in our field. One such trailblazer was Jeffrey Timmons. Recently I wrote a blog posting where I talked about his regard for intellectual honesty as a key characteristic necessary for success as an entrepreneur. Intellectual honesty can simply be defined as a focus on seeking the truth even when it doesn't agree with your own personal beliefs. It involves four basic practices: not lying to oneself, not pretending to know the truth when one doesn't, not omitting relevant facts purposely, and giving credit to sources of information where possible. For Professor Timmons, intellectual honesty was one of the key components in a coachable entrepreneur. And a coachable entrepreneur, he argued, is more likely to succeed and, therefore, present an opportunity for an investor. His guidelines suggested that an entrepreneur who knows what they don't know is better prepared for the entrepreneurial journey than one who doesn't know what they don't know. I agree. Thus, I have learned over the years that the four key tenets of intellectual honesty should be a foundation for entrepreneurship education programs and courses.

Coachability

Intellectually honest entrepreneurs collaborate and seek input. They ask questions and listen not only for confirmation but more importantly for contradiction. An intellectually honest entrepreneur is one who is coachable. Coachability requires the ability to listen and to remain open to input while maintaining the ability to balance that input against what is already known. Coachability doesn't mean taking every suggestion offered, nor does it mean ignoring everyone else to pursue a passion. In their classes and programs, many entrepreneurship educators include options to work with coaches and mentors and the requirement of talking to prospective customers. However, I have learned that without discussion and lessons on being coachable many of our students are not able to take full advantage of these opportunities.

Resilience

One challenge for us as entrepreneurship educators is that intellectual honesty and coachability require a level of resilience many of our students have not yet attained. A few years ago, I had an experience that magnified this fact for me. One of my graduate students angrily walked out of class and dropped out of the entire graduate program during a lively class discussion on the role of failure in entrepreneurship. While I wasn't able to confirm that it was that experience that led to his withdrawal, based on his remarks during the conversation, I was fairly certain it had played a pivotal role in his decision. This experience left me feeling that I had somehow *failed* in my attempts to better prepare my students for the rough and tumble world of entrepreneurship where failure is so often a part of the pathway to success. This experience left a strong impression on me and ultimately influenced me to look more closely at resilience as a competency of successful entrepreneurship.

Those of us who are familiar with entrepreneurship—either because we have lived it or studied it—know that entrepreneurship is a verb. Entrepreneurs are successful because they take action. We also know that every new venture is an experiment. We are making and testing assumptions along the way to some desired outcome. And the path to something we can define as a successful outcome is quite frequently littered with failure. At the same time, we know that for entrepreneurs, failure is not an option. Entrepreneurs persevere. So, how do we reconcile that paradox and how do we teach this to our students?

The answer, I have learned, lies in the combination of two concepts: equifinality and resilience. The first, equifinality, can simply be thought of as the belief that there are many paths to the same end. A fatal flaw among many founders is an assumption that the solution they have created to address a problem in the marketplace is the most effective, efficient, or is desired by the marketplace. The second, resilience, the capacity to recover quickly from difficulties, is required of a founder when they learn through trial and error that what they thought was true is not. This is the essence of the entrepreneurship theory “fail early and fail fast.” The less invested the easier to pivot or adapt. Thus, failure may come along the way, but the final outcome can still be success. Reframing failure reminds us that we have options and we can change the way we think about this concept and that each failure is a learning process. While maybe not welcome at the time, it can lead to ever greater success than imagined. I have learned that it is critical to spend time helping students reframe the role of failure in success.

Entrepreneurship Is a Practice

After many years of teaching entrepreneurship, I have come to believe that entrepreneurship is a practice. I often tell my students that entrepreneurship is like yoga. One should not expect to perfect it, but to be successful one must show up every day to practice and learn. I have also learned that traditional teaching styles of lecturing and tests are not as effective as experiential learning techniques. To better understand experiential learning, I turned to research in education and found that models of situated cognition (Brown, Collins, & Duguid, 1989) were a good fit for our discipline. Much like yoga this model suggests that experiential education should include opportunities for multiple practice as well as collaboration, coaching and mentoring, reflection, and apprenticeship. For this reason, I have dedicated a significant portion of my academic career to building both in-class and co-curricular experiences that afford students with opportunities to collaborate with peers, to be coached and mentored, to reflect, and for apprenticeships, to shadow and intern with entrepreneurs. I have come to believe that entrepreneurship education programs should offer learners the chance to “practice” what they are learning. To give them the chance to fail and learn from that failure. I have learned that as educators, our role is to help curate this process of experiential learning.

As I conclude, it is impossible to ignore the massive changes occurring now in our discipline and in higher education. I began teaching entrepreneurship during the dotcom bubble and continued through the subsequent busting of the bubble, 9-11, the great recession, the great economic recovery, and now the Covid-19 pandemic. In between there have been massive changes worldwide that have provided great opportunities for both learning and for business start-ups. Likewise, the changes we are now experiencing are providing our students with experiential education opportunities like never before as they apply what they are learning during this seismic shift.

For those of us who are educators, there will be lasting change. While our industry has been undergoing disruption for some time, this most recent experience has accelerated those changes significantly. Initial evidence is demonstrating that we all value the tradition of the college community but that there is also great opportunity in the changes we have been required to make. As we move forward, we may try to reduce anxiety by returning to the familiar. But I believe education as we knew it cannot be recovered. It must be reinvented. Everything is on the table now. There has never been a more exciting time to be an entrepreneurship educator and to create positive, productive, and lasting change.

What have I learned after more than several decades of teaching entrepreneurship? The primary responsibility of higher education is to prepare students for future success. The key lessons of an entrepreneurship education—creative

problem solving, seeing problems through an opportunity lens, intellectual honesty, resilience, and coachability—provide a powerful foundation for that success. In a world defined by Industry 4.0, a gig economy, excessive information and complexity, uncertainty, rapid change, environmental challenges, the forces of globalization, and yes, pandemics, that means we help them develop a passion for lifelong learning.

NOTES

1. www.qaa.ac.uk/scotland/news-events/enterprise-and-entrepreneurship-new-advice-for-universities
2. <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/entrecomp-entrepreneurship-competence-framework>
3. http://theinvisiblegorilla.com/gorilla_experiment.html
4. <https://tim.blog/lifestyle-costing/>
5. <https://www.instagram.com/p/BnZGsoMn0HD/?utm%20source=igsharesheet&igshid=lgd6z8z0o6bpo>

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