

Developing an Entrepreneurial Mindset: A Case of Innovation in Entrepreneurship Education at the American University in Cairo

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ABSTRACT

There has been an evolution among some American and European business schools toward teaching entrepreneurial mindset. Very few Egyptian and Arab business schools have addressed this concept. The experience of the American University in Cairo (AUC) “Developing and Entrepreneurial Mindset course, which began in 2020 and is currently in its evolution phase, is presented in this paper. The notion of entrepreneurial mindset, its background and history, and its significance in the context of higher education are all explained in the first paragraphs of the paper. The literature on entrepreneurial mindset education worldwide and its state in Egypt and the Arab world are then discussed. Continuing, the foundation of the entrepreneurial mindset course as well as its history on the global dimension is addressed as well as at the micro level of the AUC. The article begins by explaining what an entrepreneurial mindset is, where it came from, why it matters, and how important it is in the context of higher education. The literature on entrepreneurial mindset schooling worldwide is then discussed, along with Egypt's and the Arab world's current situation. All the course elements are discussed, including the pedagogy, evaluations, guidelines, and rubrics.

KEYWORDS: Entrepreneurial Mindset, Adult learning, Teaching Pedagogy, Entrepreneurship Education, Rubrics, Guidelines

History of Entrepreneurship Education

Entrepreneurial education's origins are uncertain, but it can be traced back to the mid-20th century. According to Katz (2003), early entrepreneurship courses were organized at Harvard University in 1947 in the United States, by Dr. Myles Mace; However, McMullan and Long (1987), stated that some elements of entrepreneurial education were first organized at Kobe University in 1938 in Japan. In the late 1970s and early 1980s, a rise in interest in entrepreneurship and small business was found, as the oil and energy crises led to stagnant economic growth and inflation. World leaders sought alternatives to save local economies and combat the growing crisis, leading to the institutionalization of entrepreneurship as an academic subject (Graevenitz et al., 2010). The 1970s and 1980s saw the birth and development of entrepreneurial education, driven by socio-economic

transformation and additional resources for higher education institutions (HEIs). However, the intellectual progression of entrepreneurial education was hindered by the diverse backgrounds of scholars who were more interested in entrepreneurship than general education (Hägg and Gabrielsson, 2019). The fields of entrepreneurship and entrepreneurial education developed simultaneously, with entrepreneurship ahead but also struggling with conceptual and methodological debate. The lack of agreement on the definition of entrepreneurship did not prevent its implementation in educational settings (Fayolle, 2013). The first doctoral theses appeared in the 1990s, but their contribution to the field was limited due to their being written in various national languages. The field's initial phase was influenced by the need for more scholars from the general education field (Kyrö, 2006). From here started the inception of entrepreneurial education.

Importance of Entrepreneurship Education

Are schools and universities nowadays preparing students for real-world life? As the digital age continues to transform industries and work, the need for an updated educational system is paramount. Teaching critical, creative, and entrepreneurial thinking is now a necessity, as schools must adapt to the fast-paced landscape (Yaqub et al., 2015). According to Chang and Lim (2005), the modern education landscape is shifting towards dynamic and practical approaches, such as entrepreneurship curricula. This shift aims to equip students with skills beyond the classroom, such as innovation, creativity, and problem-solving. By focusing on real-life challenges and hands-on experiences, students learn to think critically and take calculated risks, cultivating an entrepreneurial spirit and empowering them to thrive in a dynamic and ever-changing workforce (Vanevenhoven and Liguori, 2013). Entrepreneurship education is crucial in today's fast-paced world, as it equips students with the mindset, skills, and knowledge to create and navigate their ventures, preparing them for future challenges and opportunities. This education fosters innovation, creativity, and practical problem-solving skills, encouraging students to think creatively (Develi et al., 2011).

According to Jones (2010), Entrepreneurship education is a key component in fostering creativity and innovation in students. It encourages them to think creatively and explore new ideas, cultivating an entrepreneurial mindset. Augmented reality in education enhances students' ability to visualize complex concepts and interact with the subject. Through hands-on activities and projects, students learn to identify problems, generate solutions, and tackle challenges creatively (Ghina, 2014). Entrepreneurship education also develops critical thinking and problem-solving skills, allowing students to analyze complex situations, identify opportunities, and devise innovative solutions. By working on practical projects, students develop strategic thinking and evaluate potential risks. Entrepreneurship education builds resilience and adaptability by exposing students to unforeseen challenges and real-world situations (Lima et al., 2015). As the digital age transforms industries, teaching critical, creative, and entrepreneurial thinking is essential for schools and universities to adapt to the fast-paced landscape. An entrepreneurship curriculum inspires and empowers students by nurturing creativity, fostering a sense of possibility, and developing a growth mindset (Vakili et al., 2015).

Future Trends for Entrepreneurial Education

In response to the demands of budding entrepreneurs in a business environment that is changing quickly, entrepreneurship education is always changing. The methods and techniques employed to train and ready the following generation of innovators change along with the entrepreneurial landscape. Emerging technologies and trends are driving a steady evolution in the field of entrepreneurship education, influencing how prospective entrepreneurs will be learning in the future. These themes are reshaping the field of entrepreneurship education, from technology-driven entrepreneurship and online learning to interdisciplinary methods, global entrepreneurship, and social entrepreneurship (Hultén and Tumunbayarova, 2020). Maintaining a competitive edge in the ever-evolving realm of entrepreneurship requires both instructors and aspiring entrepreneurs to closely

monitor these developments and trends. The upcoming generation of innovators can be prepared for the challenges of entrepreneurship by embracing these trends and implementing them into entrepreneurship education (Baggen et al., 2023).

Digital entrepreneurship education is gaining popularity due to its flexibility, accessibility, and affordability. This trend includes online courses, webinars, workshops, virtual incubators, and accelerators. It allows entrepreneurs to learn at their own pace, access resources globally, and connect with a global network of fellow entrepreneurs. This trend is gaining prominence in the field of entrepreneurship (Olawale et al., 2019). Technology continues to disrupt industries, creating new opportunities for entrepreneurs. Entrepreneurship education focuses on technology-driven entrepreneurship, teaching skills like coding, data analytics, artificial intelligence, and blockchain, while encouraging creativity, problem-solving, and innovation. This prepares aspiring entrepreneurs to leverage cutting-edge technologies and embrace disruption in their ventures (Rasiah et al., 2019). Interdisciplinary approaches are also being adopted in entrepreneurship education. Students are encouraged to explore different fields, collaborate with diverse teams, and apply cross-disciplinary thinking in their entrepreneurial endeavors. This holistic understanding of business, technology, social impact, and other relevant fields enhances their entrepreneurial skill set and helps them solve complex problems (Ibrahim et al., 2023). Entrepreneurship education focuses on global entrepreneurship, focusing on topics such as international business, cultural intelligence, and global market trends. This prepares aspiring entrepreneurs to navigate complexities, expand their horizons, and embrace diversity in their ventures. Global entrepreneurship education also emphasizes building a global network and leveraging international opportunities for success. Social entrepreneurship education is gaining momentum, focusing on creating positive impacts and solving social issues through entrepreneurial ventures. Topics include social innovation, sustainability, corporate social responsibility, and ethical leadership. This education prepares entrepreneurs to create profitable businesses while making a positive difference in the world (Gaiardo, 2019).

Background of Entrepreneurship Education in Egypt

According to Sheta (2012), many graduate students in Egypt lack the necessary expertise to start a business due to a lack of formal education in entrepreneurship. The high unemployment rate and lack of job opportunities in both private and public sectors make it crucial to integrate entrepreneurship into universities' curricula. This would not only develop creativity, critical thinking, project management, problem-solving, and innovation competencies but also build entrepreneurial knowledge and skills for successful businesses or social enterprises supporting entrepreneurs. Incorporating entrepreneurship into university education in Egypt can boost economic growth and address environmental, economic, and social issues. The Egyptian context is experiencing a surge in interest in entrepreneurship education, yet formal university education is lacking opportunities for students to learn about entrepreneurship.

Egypt's entrepreneurial education is gaining attention nowadays for its potential to boost the economy, create jobs, and equip students with global market skills (Ratten and Jones, 2021). The Egyptian government is focusing on achieving Egypt Vision 2030, which includes a high-quality, accessible high-quality education system as one of its key pillars (Rizk & Rashed, 2022). Egyptian students benefit from entrepreneurial education as it equips them with the necessary skills to thrive in the global economy. It teaches them to identify opportunities, generate and develop ideas, and turn them into profitable businesses, while also managing resources and navigating business challenges (Hattab, 2014).

Entrepreneurship education in Egypt can significantly impact the nation's economy by providing individuals with creative freedom and a sense of control over their lives. This education can help create jobs and alleviate poverty in areas with high unemployment rates (Abo-Shabana et al., 2015). By teaching students how to start their businesses and become job creators, rather than job seekers, entrepreneurial education can create a culture that

encourages individuals to establish and run their businesses. This approach can also raise living standards and alleviate poverty by equipping students with the skills necessary to establish and run their businesses (Barsoum et al., 2016).

Definitions of Entrepreneurial Mindset

Mindsets, a concept introduced by cognitive psychologists in the early 20th century, refers to the cognitive processes activated to solve a task. This concept has evolved significantly across various fields, including entrepreneurship (Capasi, 2022). An entrepreneurial mindset is a widely used concept in the field of entrepreneurship, often used by practitioners, scholars, and educators. It is a necessary competency, often listed as a learning outcome in course descriptions, and discussed at scholarly conferences. Naumann (2017) suggests that understanding the mindset and deep cognitive structures of entrepreneurs is a path forward for the entrepreneurship research community. Neck et al., (2023) argue that an entrepreneurial mindset is at the core of entrepreneurship and helps nascent entrepreneurs successfully develop their ventures.

The entrepreneurial mindset is a set of attitudes, behaviors, and skills that encourage individuals to identify opportunities, take calculated risks, and create value. It is characterized by an innovative spirit, resilience, and a willingness to challenge the status quo. This mindset is crucial for driving economic growth, fostering innovation, and creating job opportunities. In a competitive global economy, it empowers individuals to think creatively, adapt to change, and seize opportunities. It also helps organizations stay agile and competitive in fast-paced markets. At the macroeconomic level, it drives technological advancement, productivity gains, and the creation of new industries. Understanding its definition is essential for harnessing its power for personal, organizational, and societal growth (Loboda et al., 2018).

Why an Entrepreneurial Mindset is Important for the Development of Critical Thinking

Critical thinking is a crucial skill for entrepreneurs, requiring logical, well-thought-out judgments. It involves synthesizing and evaluating information from various sources, discerning relevance, and accuracy, and applying this knowledge to decision-making processes. This skill is essential for entrepreneurs to make the most of their business and themselves, as decisions often have lasting impacts (Malik, 2019). Entrepreneurial critical thinking also extends to understanding and predicting market trends, consumer behaviors, and economic shifts. It involves questioning the status quo, challenging traditional business models, and innovating new growth pathways. Critical thinking is not just a tool for problem-solving but also a framework for envisioning and realizing new possibilities (Drummond, 2012).

According to Arkadiy (2021), critical thinking makes Entrepreneurs able to navigate the ever-changing business landscape with confidence and adaptability. These skills include problem-solving abilities, which involve identifying and analyzing problems, and encouraging analytical thinking, which involves gathering and evaluating information, identifying patterns, and drawing logical conclusions. Entrepreneurs can effectively address market gaps, customer pain points, and industry challenges by cultivating problem-solving abilities (Chaurasia, 2022).

Critical thinking makes informed decisions based on data and evidence, allowing them to assess market trends, evaluate business opportunities, and make strategic decisions that drive success. Creativity and innovation are also essential in entrepreneurship, as entrepreneurs need to think outside the box, challenge conventional wisdom, and come up with unique ideas that disrupt the market. Critical thinking also evaluates potential risks and rewards associated with different business decisions. By weighing the pros and cons, entrepreneurs can take calculated risks and develop strategies to mitigate potential pitfalls. Lastly, as Hägg (2017) stated, critical thinking is essential

for entrepreneurs to articulate their ideas, persuade stakeholders, and build strong relationships with team members, investors, and customers. This entrepreneurship skill enables entrepreneurs to effectively convey their vision, negotiate deals, and foster a collaborative work environment.

Methods for Assessing the Entrepreneurial Mindset

Since the entrepreneurial mindset is a multidisciplinary term, its assessment is influenced by several academic frameworks. Trait theory is one of the most prominent among them; it explains why individuals display various personality traits and how these qualities influence behaviors, such as entrepreneurial activities (Degefu et al., 2024). According to social cognitive theory, humans learn within the framework of society, where they both influence and are influenced by their surroundings (Bandura, 1989). The importance of resources, competencies, and competitive advantages in entrepreneurship is emphasized by the resource-based theory. Conversely, effectuation theory examines how habit and creativity interact at various stages during entrepreneurial activity. These theoretical frameworks contribute to the conceptual development of the entrepreneurial mindset by exploring diverse factors including personality traits, cognitive processes, social influences, resource utilization, and decision-making strategies (Das and Teng, 2000).

Researchers have assessed entrepreneurial mindsets—a reflection of an individual's approach to entrepreneurship—using a variety of techniques. Surveys and grading schemes have been employed in certain research to assess entrepreneurial mindsets. The entrepreneurial mindset profile, general enterprise propensity, test of entrepreneurial self-efficacy, and entrepreneurial attitude orientation scale are additional tools for assessment (Shaver and Commarmond, 2019). Furthermore, to track the evolution of an entrepreneurial mindset over time, researchers make use of instruments like the KEEN 3Cs Framework, the ESEMA Survey, direct grading assessments, indirect surveys of student responses, and longitudinal studies (Jackson et al., 2022). Other measures of entrepreneurial mindset that are not available to the public include Rotter's locus of control and the Jackson Personality Index (JPI). According to Huang-Saad et al. (2018), a 5-factor scale for decision-making-based entrepreneurial self-efficacy is also suggested.

History of Teaching Entrepreneurial Mindset Courses in Higher Education

It is possible to view the 2010s as a time when the design and delivery of educational practices were streamlined and consolidated. With wide variances in what entrepreneurial education signifies concerning course content (Loboda et al., 2018) and learning outcomes (Scott et al., 2016), it is evident that the practice of entrepreneurial education has moved beyond traditional start-up ideas of entrepreneurship (Mwasalwiba, 2010). The idea of the entrepreneurial mindset, on the other hand, entrepreneurial education seems to be the most sought-after learning outcome in entrepreneurial education across business and non-business disciplines during this time. It appeals to both the venture creation approach driven by the USA and the enterprising approach driven by the UK/Europe (Kuratko and Morris, 2024). Furthermore, it is often known that not only are there different approaches to teaching entrepreneurship than others, but there is also no one optimal technique to teach or study it. Accordingly, to promote the capacity to think and behave more entrepreneurially in any situation, educational interventions must incorporate practice and experience (Handayati et. al, 2020).

Throughout the 2010s, entrepreneurial education consolidated its standing as a distinct area of study and instruction. The entrepreneurial mindset developed as a desired learning outcome that can be customized according to educational objectives, student needs, abilities, and context, and entrepreneurial education as a teaching approach gained ground among educators (Daniel, 2016). There are currently conferences devoted to entrepreneurial education that facilitate cross-border partnerships and international information sharing, and several journals have arisen as important platforms for communication on the subject. The number of academics

writing on entrepreneurial education has been steadily increasing, and the topic has split into smaller groups with different journals, conferences, and sources of inspiration for scholars (Mukhtar et al., 2021). According to Wardana et al. (2020), a more homogenous research base and the utilization of many key works by academics in the area indicate an increasing level of homogeneity and maturity. Published entrepreneurial education research also saw an increase in theoretical and methodological sophistication.

The Entrepreneurial mindset courses encourage students to develop their mindset and understand the nature of enterprise and entrepreneurship. It focuses on building something from nothing and managing uncertainty and risk. The entrepreneurial mindset courses introduce the role of the entrepreneur, innovation, and technology in the entrepreneurial process, focusing on growth-oriented and innovative ventures, whether for-profit or not-for-profit (Blake et al., 2020). Entrepreneurial mindset courses focus on the development of growth-oriented and innovative ventures, suitable for individuals considering starting a business, those already in business, those interested in commercializing their innovations, and those who advise entrepreneurs or engage in policymaking in entrepreneurship. It aims to develop an entrepreneurial mindset and enterprising skill set, which is crucial for constantly changing markets or workplaces. The course aims to advance students' career readiness by instilling an entrepreneurship mindset, orientation towards opportunity, and propensity towards action (Inada, 2020).

Methodologies for Teaching Entrepreneurial Mindset Courses

The entrepreneurial mindset is a mental attitude and belief system that can be developed through practice, reflection, and feedback. It requires effort, practice, and challenging tasks to change beliefs and attitudes. The blueprint emphasizes the importance of practice, reflection, and feedback in cultivating this mindset (Daniel, 2016). Common methods for integrating practice, reflection, and feedback into the curriculum include semester-long scaffold projects, journaling, and peer feedback. This approach helps instill an entrepreneurial mindset in individuals, promoting growth and success in their careers. Entrepreneurial mindset education should focus on three main objectives: education about entrepreneurial procedures and features, education for creating viable ventures, and education in enterprise (El-Sayed, 2020). Other objectives include expanding entrepreneurial intentions and enhancing entrepreneurial self-efficacy. Teaching methods can be categorized into traditional and innovative approaches. Traditional methods involve formal lectures in the classroom, while innovative methods involve active participation from both students and instructors. These objectives help shape the teaching methods in entrepreneurship education, ensuring students are well-informed about entrepreneurial procedures and features (Daspi et al., 2023).

Entrepreneurship education aims to educate students about entrepreneurial procedures, expose them to creating ventures, and provide practical exposure to their ventures. Other objectives include expanding entrepreneurial intentions and enhancing entrepreneurial self-efficacy. Teaching methods can be categorized into traditional and innovative approaches. Traditional teaching methods involve formal lectures in the classroom, while innovative teaching methods involve active participation from both students and instructors. Other objectives include enlarging entrepreneurial intentions and enhancing entrepreneurial self-efficacy (Barroca and Soares, 2017).

Traditional teaching methods for an entrepreneurial mindset include teacher-centered approaches, passive student roles, written texts, no immediate goal assessment, and a well-organized learning environment. These methods are often adopted due to their cost-effectiveness and ease of teacher responsibilities. However, they may not fully activate the required entrepreneurial attributes, as students are only prepared to seek jobs rather than create employment. To foster career-oriented entrepreneurship, innovative methods should be adopted that encourage questioning, examination, and practical discussions with real-life entrepreneurs. This approach should encourage students to actively engage in entrepreneurial activities and encourage real-life discussions (Tretyakova et al, 2020).

Innovative learning methods in entrepreneurship education require teachers to stimulate learning and encourage students to rediscover themselves in terms of their abilities, knowledge, and attitude. These methods include learning from one another, being practical conscious, debating and exchanging ideas, and guiding self-discovery. However, these methods can be costly and may not align with university curricula. Some innovative learning methods include computer simulation of business games, role play, business plan development, personal and group projects, visits to entrepreneurs, new business creation, workshops, group discussions, and case studies. Experiential learning styles, creative problem-solving, and learning by doing are essential for entrepreneurship education. Tools for experiential learning in entrepreneurship education programs include business plans, creating new ventures, getting advice, and working with entrepreneurs, computer simulations, behavioral simulations, scanning entrepreneurial environments, real-life events, field trips, and viewing video clips of existing new ventures. These methods aim to arouse students' interest and promote their learning through creative problem-solving and experiential learning (Bosman and Fernhaber, 2021).

Developing the Entrepreneurial Mindset Course Background

At the American University in Cairo, an Entrepreneurial mindset course started in 2020 under the name “Entrepreneurial Management”, as a course in the MBA graduate program. Consisting of 10 to 15 students, it was the first course to be taken in the MBA program besides the “Accounting for Managers”, course, so students were to choose at first to take “The Accounting for Managers course” or the Entrepreneurial Management course”.

It was an introductory 1.5-credit-hour course without any pre-requisite courses. The course participants came from different backgrounds, including students who graduated in engineering, pharmacy, dentistry, or even business. When the course started titled “Entrepreneurial Management,” the business plan was the main pillar of the course's output.

Dr. Ashraf Sheta had concerns about this, as the business plan was covered in another course called “Entrepreneurship and Innovation”, which is 3 credit hours not only 1.5 credit hours, so he changed the business plan as a main pillar and started to focus on entrepreneurial mindset in the new course.

Due to the experience of Dr. Ashraf Sheta in entrepreneurship education for more than 15 years, he found that no one has tackled the entrepreneurial mindset, all the other courses were mainly working on tools, such as business model canvas, business plans, etc., without focus on the mindset itself. From here, the entrepreneurial mindset course was first introduced.

The entrepreneurial mindset course focused on entrepreneurship as a journey where the students are allowed to develop their critical thinking capabilities to foster the nascent entrepreneurial mindset.

It is case-oriented, analyzing Egyptian and international cases to relate concepts. The course used an interactive learning pedagogy, including discussions, debates, and role-playing. Experiential learning is enhanced through discussions with guest speakers' entrepreneurs, who share their knowledge. The course aimed to enhance the well-being of humanity and contribute to the economies of nations.

The Syllabus Outline and Pedagogy

The entrepreneurial mindset course is delivered using an adult learning technique, with the instructor providing guidance throughout the semester. They serve as facilitators, allowing students to engage based on the lecture and material. The instructor ensures clear guidelines for assignments and presentations from day one, following the

syllabus, and ensuring a comprehensive and engaging learning experience.

The syllabus outline' includes lecture dates, topics, readings, assignments, and material students need to refer to, such as videos or textbook chapters. Videos are essential for illustrating concepts and relating to class. Lectures often include in-class activities or exercises, as they are crucial for a lively, experiential learning experience. The class schedule is comprehensive, incorporating diverse activities such as debates, case analysis, discussions on specific topics, role play, and real-life simulations. It is detailed to ensure students understand the content and prepare for the upcoming class.

The course's instructor gathers and listens to students' feedback to improve its content, and methodology, and adjust the syllabus and grading system. The instructor makes improvements based on university evaluation forms and personal feedback from students. The instructor also considers feedback from students in class, asking about their learning experiences and areas for improvement. The instructor's interest in understanding and evaluating the effectiveness of the syllabus, material, and workload is crucial for students. It encourages participation and voicing opinions, even if there's negativity, which can greatly benefit the course and teaching methods.

The Entrepreneurial mindset course emphasizes the importance of students as case analysis in its pedagogy and dynamics. They must perfect case analysis to solve assigned cases from publishing houses or real-life entrepreneurial mindset situations.

The syllabus covered fundamental aspects of an entrepreneurial mindset, benchmarking global best practices. It introduced the mindset, its historical definitions, uniqueness, importance for the economy, myths, and the theoretical foundation of system theory, emphasizing its importance in understanding the economy.

The first lecture addresses four sections:

- Section one is the course introduction where the instructor gives a briefing about the course and asks some general questions to assess the knowledge of the students about the entrepreneurship concept. The instructor explains the components available over the blackboard learning management system including the entrepreneurial mindset library.
- Section two is the discussion of the syllabus where students have to say what they expect from the course, and then the instructor figures out what is in scope and what is out, this is so important to set out the learning objectives of the course. Students also discuss the syllabus with the instructor, so if they want to add something to the syllabus or change something, this can be done within the first lecture.

Also, a presentation about the output of the course is displayed to let the student understand the output of the course. The title of the presentation is "Entrepreneurial Mindset the Journey". The journey is divided into five steps which are tackled during the course:

- The Idea
- Understanding the Ecosystem
- Understanding the Obstacles to Execution
- How to Cross the Hurdles
- Lessons Learned

This presentation is the cornerstone for the whole course where students will be able to understand the whole journey and what are the expectations from them through a real-life project. The above-mentioned components form the final project to be presented during lecture eight (The last lecture in the course). It is extremely important to explain that all the steps mentioned in the journey are submitted during the course and that the final presentation is the coronation of the student's efforts.

- Section three is the introduction to Entrepreneurship; the instructor uses Bruce R. Barringer and R. Duane Ireland. Entrepreneurship: Successfully Launching New Ventures. 's textbook to present the topic to provide students with adequate knowledge about what is, why it is important, types of entrepreneurs, myths about entrepreneurship
- Section four is The Art of Pitching; this section is of extreme importance because the students are supposed to learn how to present their ideas for startups and most importantly how to present the idea efficiently and effectively within a very short period.

Students must be involved in some class activities to foster their critical thinking capabilities, these activities include the following.

- Why do you want to be/not be an entrepreneur?
This question is discussed in the form of questions and answers, the answer must include the rationale of the choice. All the students participate in this question, it is a useful tool for the instructor to assess the status of willingness to be an entrepreneur before and after the course.
- Distribution of teams, this is an easy task if the students have experience in another course so they already know each other, if not the instructor can help them in this task taking into consideration that the team needs to be diversified according to experience and occupation. The number of team members must be in the range of five to seven members.
- What went wrong, this activity is done by presenting a micro case of not more than half a page to the students about a startup that failed with some questions at the end of the case, the students are divided into groups and each group is required to answer the questions according to their opinions, the benefit of the exercise is to develop the critical thinking of the students and to know that firstly that not all of the startups succeed, second is that there is right or wrong answer but there must be a rationale for any answers provided
- Videos about entrepreneurship and pitch decks are presented and discussed with students to test their level of understanding and to provide them with some tools to be used as references.

Homework, it is important to mention that all the requirements of the homework must be discussed in advance in class.

- Preparation of an idea pitch (individual exercise, maximum 3 minutes), students must relate to the references and videos mentioned to develop an idea pitch, the challenge of this exercise is usually the time. Accordingly, students are provided with guidelines and rubrics. Another issue is that some students might have their own business or their family business, so they are encouraged to adopt a new idea.
- Read case 1, The American University in Cairo has partnerships with many publishing houses, such as Harvard, Emerald, etc., which can provide the instructors with the cases. However, due to the abundance of local studies written by Dr Ashraf Sheta; it was essential to give the localized flavor to make the cases more relevant to the students. The instructor distributes a case study for the students to read and prepare their insights about it for class discussion during the second lecture.

The second lecture addresses four sections:

- Section one is the Introduction to case analysis. The instructor chooses these cases and offers them to the students as homework to analyze, but before giving students cases, they must first learn how to analyze cases, from here comes the importance of the second lecture, which is case studies analysis.
- Section two discusses the concept of “From idea to opportunity”. During the second lecture, students also must learn that not all the ideas they offered can be considered an opportunity, as there is a difference

between idea and opportunity, so a presentation here must take place to show the difference between the idea and opportunity, and the reference here was the textbook “Successfully launching new ventures”. A presentation of differentiating ideas from opportunities adopted from the textbook is presented. The reason for this presentation is to explain to the students that not all ideas are opportunities and that there are certain conditions for opportunities. The instructor provides the students with a first screen analysis template adopted from the textbook to give the students a scientific tool to assess the feasibility of their ideas. This exercise helps the students to develop their scientific thinking capabilities as well as gives a quantitative approach to compare different ideas

- Section three is about the discussion of Case 1 which was distributed in lecture one, students give insights about the case, what are the critical incidents, and what is the dilemma. The instructor runs the class in the form of questions and answers where the students can finally arrive at the main headlines of case analysis steps. Following that a presentation titled “How to Analyze a Case “is explained, and all the steps are highlighted as relevant to Case 1. In this lecture, students are given homework to be due in the third lecture about the analysis of case analysis individually. Because the assignment, especially the second lecture’s assignment, is tough, assignment guidelines and an example of best practices are offered with the assignment to facilitate everything for students.
- Section four is the Pitch deck exercise. Students are given a pitch deck of their ideas within 3 minutes, according to the guidelines and videos shown in lecture 1. The feedback regarding the grade and its logic are given to the students during the class. Students are given the chance to discuss the grade anytime during the office hours of the instructor.

In class activity

- Debate whether entrepreneurs are born or made, this exercise is relevant to the course topics its main objective is to help the students understand the role of entrepreneurship education and to tolerate different opinions within teams which is one of the main constructs in entrepreneurship
- Savvy entrepreneurial firm. Students are given an example of a successful startup in the form of a micro case and to discuss the reasons for success by answering a maximum of three questions.

Homework

- Analysis of case 1 (individual)
- Students are required to analyze case 1 within the steps explained in the case analysis presentation and they are required to finish submission before class three to discuss their answers.

The third lecture addresses two sections:

- The first section is guest speaker 1, This section includes a discussion with a guest speaker, this guest speaker comes to give a talk and bring up his/her experience and challenges to students. The talk can be up to one hour, the guest speaker speaks for half an hour, and students discuss for the other half hour. The role of the instructor here is to facilitate the time and the questions going on within this talk without giving any opinions.
- The second section is about Entrepreneurship trends and the Entrepreneurship ecosystem in Egypt. This section is explained through a presentation addressing the ecosystem of entrepreneurship in Egypt, ranging from ideas, seed funding, competitions, incubators, accelerators, angel investors, and venture capitals The logic of the session is to equip the students with the necessary information to develop a thorough understanding of the Egyptian entrepreneurship ecosystem which can be used to develop the startup from idea to execution.

Homework

- Choosing the best idea to pursue as a startup and how it conforms with the opportunity guidelines (group). Since students are divided into groups, each one in the group conducted the idea pitching and all the group members knew how to differentiate between ideas and opportunities. The teams are required to convene to choose one idea in the light of the first screen analysis to pursue the final project.
- Identifying the authorities and resources needed for the inception of the startup (group exercise) Students are required to choose the most suitable authorities within the Egyptian entrepreneurship ecosystem which can help them to execute their business.

The fourth lecture addresses two sections:

- The first section is a discussion of the required assignments, this is extremely important because one of the major issues for the success of the course is to give feedback about the strengths and weaknesses of the assignments and the rationale for the grades given for each student. Providing feedback is important for motivating students as well as the fact that it enhances their understanding that the grades given to them are fair.
- The second section is a discussion of the obstacles which will be faced during the idea execution This section is part of the final project, and it is where the instructor and the students can share their practical knowledge about the obstacles that might be faced during execution. This topic is conducted in the form of role-playing where each team develops a script about an execution obstacle faced and ends with the team finding some answers and asking the rest of the class for some suggestions to overcome the faced obstacle thus enhancing the peer learning dimension.

Homework

- Preparation for the midterm
The instructor gives the student a medium-sized case one week before the midterm exam, by making the exam open book and giving the students the case a week before the exam, students will be challenged on how to figure out the case critical points they were trained on during the past lectures, and the smart student will be the one who will read and start to anticipate the midterm questions.

The fifth lecture addresses two sections:

- Mid-term exam (case analysis using questions to be answered during class time)
The questions are just 3, one is an easy question straight forward, one medium difficult, and one very difficult for the A student, it must be solved in just 75 minutes, so students must prepare very well for this exam, and the instructor fosters the critical thinking of the students, and this is the first part of the lecture. Students who were well-prepared attained better grades. Throughout the semesters the grades were normally distributed.
- Dynamics of a startup. A role play show about the dynamics of a startup (will be 1.5% of your participation grade). After finishing the midterm exam, students take their break, and then comes the second part of the lecture, which is the “Dynamics of startups” topic. Students must make a roleplaying show about the dynamics of startups, so the groups sit together and make a scenario for a problem that they might face in the startup. The exercise must exemplify a real-life situation where partners with the same business have different opinions regarding a strategic decision. The aim is to show that conflicts will arise within the business context and to foster conflict resolution capabilities in a logical manner as

well as to enhance decision-making skills built on sound logic and satisficing solutions,

Homework

- Preparation for the group case presentation. The instructor gives the teams a group case to present in the next lecture. The criterion for the cases is the following:
 - 1- Each case will address a different aspect within the entrepreneurship for example strategy, scaling up, technology, business model ...etc. so that the rest of the teams can develop an understanding of different topics in the entrepreneurial context.
 - 2- The case must not exceed 10 pages.
 - 3- The case is published for a maximum of two years to ensure that the context is novice.

The sixth lecture addresses three sections.

- The first section is the discussion of the mid-term exam. The instructor discusses his general feedback about the performance of the students in the mid-term. Also, he should seek their feedback regarding the level of difficulty the benefits taken from the exam, and the practicality of the case used in the exam. He then shows the best practices to be available for other students and it is posted over the blackboard system. He is supposed to allow any student who wants to discuss his/her grades during office hours.
- The second section involves the preparation of a group case presentation. The instructor discusses the group cases with the students and gives them the outlines for the group case presentation, noting that it should not be a case analysis presentation.
- Guest speaker 2. The second part is the second guest speaker session where a speaker comes to give a speech and bring up his experience and challenges to students, same as what happened in the third lecture.

The seventh lecture addresses four sections:

- Group case presentations. This section is where the teams present the group presentation. There are at least three presentations each term, where the students can learn about the different aspects of entrepreneurship through guided peer learning exercises. This is done using innovative engagement techniques using questions and answers from the presenters as well as using online engagement tools like Kahoot! By the end of this section, the students develop an understanding of the different challenges facing entrepreneurs and how to overcome them. Also addressing other functional dimensions like marketing, operations, finance...etc. Related to types of entrepreneurship.
- The second section is about Understanding the practical impediments facing startups. Throughout this section, the students and the instructor have an open discussion about the obstacles they might face in the execution of their project. In contradiction with the conventional thinking that obstacles are mainly financial ones, it was found that there are other obstacles including the availability of information, human resources, and governmental registrations can cause sound challenges to the inception of any project
- The third section is a Discussion of the final startup presentation. In this section, the instructor opens the way for the students to discuss the suggested structure of the project's final presentation. Students are encouraged to have a beta version of the presentation for thorough discussion. However, through observation, it was found that most of the teams are usually not able to have the initial presentation available for discussion due to lack of time.
- The fourth section is about Lessons learned. In this section, students discuss the lessons they learned throughout the course and the project. This exercise should be included in the final presentation. The main observation found is that execution challenges play a vital role in the success of any startup. This brings up the concept of entrepreneurial mindset is a main contributor to execution intelligence.

The eighth lecture addresses the final presentation.

- This lecture involves the final startup presentation, where teams submit and present the journey of their startup from the start till the end using the cumulative exercises submitted throughout the course

Assessment of the course

The main assessment is divided into:

Reflective reports (10%)

- Reflection papers about guest speakers' presentations 10 % (2 reflections from the guest speakers) (individual)

Assignments and coursework (70%)

- Participation in class 10 % (individual)
- Pitch deck exercise 10 % (individual)
- Cases analysis assignments 10 % (1 case) (individual)
- Choosing the best idea to pursue as a startup and how does it conform with the opportunity guidelines exercise (5%) (group)
- Identifying the authorities and resources needed for the inception of the startup (10%) (group exercise)
- Group Case presentation 10% (1 case) (group)
- Final startup presentation 15% (group)

Exams (20%)

- Mid-term case analysis 20% (individual)

Guidelines for the Assignments

Pitch deck presentation guidelines

- 1- 3-5 minutes
- 2- 5-7 slides
- 3- Videos can be used (optional)
- 4- Submission on blackboard

Case analysis steps

- 1- Gaining familiarity
- 2- Identify key players
- 3- Explore the timeline of events in the case
- 4- Identify the main challenges faced
- 5- SWOT analysis (if there is enough information)
- 6- Available alternatives
- 7- Recommendations for solutions
- 8- Pros and cons for each solution
- 9- Final decision
- 10- Action plan

Note that these steps do not contradict the presentation posted, and might be subject to changes according to the nature of the case (e.g. lack of information, topic (sometimes there is no need for the SWOT))

Identifying the authorities and resources needed for the inception of the startup (group exercise)

- 1- Cover page including the team members' names.
- 2- Conduct an ecosystem mapping to identify the different entities that can help you inception your company.
- 3- Mention the logic for choosing the entities.
- 4- Explain the company is scaling up plan.
- 5- Mention who will be the stakeholders involved and why.
- 6- One of the team members can post the document as a pdf document over the BB

Guest speakers' guidelines

The guest speakers are one of the most valuable aspects of the course and should not be missed. Arriving late or leaving early on a speaker date is not acceptable. Walking out during a guest lecture is rude and reflects on all of us.

Choosing the best idea to pursue as a startup and how does conform with the opportunity guidelines (group)

- 1- Cover page including the team members' names.
- 2- Identify the different ideas which were discussed.
- 3- Explain why the team chose a specific idea as an excellent opportunity to pursue.
- 4- Complete the first screen feasibility analysis and include it within the study.
- 5- Explain the risks that might accompany following the idea as a startup.
- 6- One of the team members can post the document as a pdf document over the BB.

Mid-term exam guidelines

- 1- The exam will be in the form of questions related to the case, and you are supposed to answer the questions within the allocated time of the class 75 minutes
- 2- The questions are testing your understanding of the course; it is suggested to read the material related to the course in advance
- 3- You can bring a printed copy of the case with some comments on it (it is not a cheat sheet)
- 4- You are supposed to submit the answers over BB
- 5- Plagiarism is tested via BB, any type of plagiarism will result in grade cancellation

Methodology of cases presentation

There are some guidelines for the case study presentations:

1. The entire group must participate in the presentation.
2. Audio visuals are an added value.
3. Presentation time must not exceed the allocated time
4. Opening discussion with class members is obligatory
5. All the teams must read the cases in order to discuss with the presenting teams

Reflection paper guidelines

The reflection paper must address the following:

- Description of the talk /filed visit
- How is it related to the course?
- What are the challenges observed?
- Lessons learned and recommendations if any

The format of the reflection paper is:

- 800 words
- Times new roman
- Font 12
- 1.5 spacing

Final startup presentation guidelines

Format

- PPP
- Font 27 for titles
- Font 18 for text
- Arial

Content

- Idea
- Resources needed for establishing the startup
- Authorities addressed why
- Obstacles of execution
- Suggested solutions to overcome the obstacles
- Lessons learned from the course

General guidelines

- Allocated time = 20 minutes maximum
- 10 minutes for questions and answers
- All of the team members must participate
- Numbers will be an added value
- Specificity is a must (authorities..... etc.)
- Submission of the presentation before class

Rubrics for the Assignments

Pitch deck rubric:

- 1- Time management
- 2- Ability to cover all of the required dimensions
- 3- Presentation skills
- 4- Ability to answer questions

Case study discussion rubric

Team name:

Case title:

Case study discussion rubric		1 Poor	2 Fair	3 Good	4 Very good	5 Outstanding
Coverage of key points	The answers are covering the main themes of the case					
Quality of analysis	The analysis of the challenges is comprehensive					
Depth/applicability of recommendations	The recommendations are covered in an elaborate manner answering the questions of what, why					
Questions and Answers	Participant answers questions confidently and completely.					
Teamwork and balance	Load of presentation is handled fairly and in a balanced manner					
Total (Maximum 50 points)						

Name	Grade

Case analysis rubric

Case study analysis rubric	1 Poor	2 Fair	3 Good	4 Very good	5 Outstanding
Coverage of key points					
Quality of analysis					
Depth/applicability of recommendations					
Abiding by case analysis guidelines					

Midterm rubric

Midterm answers rubric	1 Poor	2 Fair	3 Good	4 Very good	5 Outstanding
Completion of the answers (answered all of the required questions)					
Quality of responses (elaboration, linkages between different aspects)					
Relevancy to the course material					
Scientific rigor (usage of scientific terms mentioned in course)					
Providing logic for recommendations					

Case study presentation rubric

Team name:

Case title:

Case study presentation rubric		1 Poor	2 Fair	3 Good	4 Very good	5 Outstanding
Coverage of key points	The presentation covers the main themes of the case.					
Quality of analysis	The analysis of the challenges is comprehensive.					
Depth/applicability of recommendations	The recommendations are covered in an elaborate manner answering the questions of what, why					
Commitment to Time	The participant's part of the presentation is within the allocated time limit of 20 minutes including a discussion					
Presentation Organization	The excellent and engaging introduction provides an overview of the introduction; the conclusion excellently strengthens the main points.					
Body Language	Participant communicates interest in the topic with high self-confidence, keep eye contact with the audience, and use facial expressions and gestures effectively.					
Illustrations	Visuals attract the attention and effectively enhance the presentation; graphs and tables clearly illustrate important points; graphics displayed are related to the topic.					
Storytelling	Does the presentation induce storytelling capabilities and demonstrate a good story?					
Questions and Answers	Participant answers questions confidently and completely.					
Teamwork and balance	Load of presentation is handled fairly and in a balanced manner.					
Total (Maximum 50 points)						

Reflection paper rubric

Reflection paper rubric	1 Poor	2 Fair	3 Good	4 Very good	5 Outstanding
Description of the discussion					
Explanation of the personal experience					
Explanation of the relevancy to the course					
Lessons learned					
Compliance with the guidelines					

Final startup presentation rubric

Case study analysis rubric	1 Poor	2 Fair	3 Good	4 Very good	5 Outstanding
Coverage of key points					
Quality of discussion					
Applicability of execution					
Abiding by guidelines					
Presentation skills					
Ability to answer questions					

Syllabus

#	Topic, Reading Assignments, Activities and Homework
1	<u>Topics covered</u> <ul style="list-style-type: none">- Course Introduction- Discussion of the syllabus- Introduction to Entrepreneurship- The art of pitching <u>In class activity</u> <ul style="list-style-type: none">• Why do you want to be/not be an entrepreneur?• Distribution of teams• What went wrong <u>Homework</u> <ul style="list-style-type: none">• Preparation of an idea pitch (individual exercise, maximum 3 minutes)• Read case 1
2	<u>Topics covered</u> <ul style="list-style-type: none">- Introduction to case analysis- - From idea to opportunity- - Discussion of Case 1

	<ul style="list-style-type: none"> - Pitch deck exercise 10 % (individual) <p><u>In class activity</u></p> <ul style="list-style-type: none"> • Debate whether entrepreneurs are born or made • Savvy entrepreneurial firm <p><u>Homework</u></p> <ul style="list-style-type: none"> • Analysis of case 1 (individual)
3	<p><u>Topics covered</u></p> <ul style="list-style-type: none"> - Guest speaker 1 - Entrepreneurship trends and Entrepreneurship ecosystem in Egypt <p><u>Homework</u></p> <ul style="list-style-type: none"> • Choosing the best idea to pursue as a startup and how it conforms with the opportunity guidelines (group) • Identifying the authorities and resources needed for the inception of the startup (group exercise)
4	<p><u>Topics covered</u></p> <ul style="list-style-type: none"> - Discussion of the required homework - Discussion of the obstacles that will be faced during the idea execution <p><u>Homework</u></p> <ul style="list-style-type: none"> - Preparation for the midterm
5	<p><u>Topics covered</u></p> <ul style="list-style-type: none"> - Mid-term exam (case analysis using questions to be answered during class time) - Dynamics of a startup <p>A role play show about the dynamics of a startup (will be 1.5% of your participation grade)</p> <p><u>Homework</u></p> <ul style="list-style-type: none"> - Preparation for the group case presentation
6	<p><u>Topics covered</u></p> <ul style="list-style-type: none"> - Discussion of the mid-term exam - Preparation of group case presentation - Guest speaker 2
7	<p><u>Topics covered</u></p> <ul style="list-style-type: none"> - Group case presentations - Understanding the practical impediments facing startups - Discussion of the final startup report and presentation - Lessons learned <p><u>Homework</u></p> <ul style="list-style-type: none"> - Reflection paper 2
8	<p><u>Topics covered</u></p> <ul style="list-style-type: none"> - Final startup presentation and submission

Conclusion

Several conclusions can be into consideration after teaching the course for several semesters:

- 1- The pedagogy is one of the main pillars of the success of the course
- 2- The adoption of the project-based course is one of the key success factors
- 3- Having complete details of the guidelines and rubrics in advance is extremely important
- 4- The practical background of the instructor is essential to the success of the course
- 5- Providing timely feedback about the assignments is exhausting, however it is imperative since it gives motivation to the students.
- 6- Adopting the case approach is necessary because it displays a practical situation and experiential learning for the students where they know how to deal with real-life situations faced by entrepreneurs
- 7- It is always essential to remember that the main output of the course is to develop an entrepreneurial mindset, the course does not mainly depend on providing tools for startup inception.
- 8- The instructor should highlight that s/he does not own the right answer, there are no right or wrong answers, but any answer must mainly depend on sound logic, and all the answers are accepted
- 9- The instructor should act as a facilitator s/he should give at least seventy percent of the time of the lecture to constructive activities involving all the students.
- 10- The instructor must foster the notion that his/her opinion regarding any case might be subject to discussion
- 11- It is essential to highlight that possessing an entrepreneurial mindset does not involve certain steps since it is a way of thinking that evolves through time and experience. The time and experience elements can be partially replaced through the understanding of the teaching case studies as well as the personal experience of the instructor and the guest speakers.

Testimonials

During the Spring 2023 semester, I attended the course Developing an Entrepreneurial Mindset with Dr. Ashraf Sheta at the American University in Cairo. Dr. Ashraf has tremendous experience in the entrepreneurship domain; his experience added much value to the course's content. The system focused on the practical aspect of entrepreneurship, my favorite aspect being the case studies where we were exposed to both successful and failed companies and were tasked to analyze their situation. The course is perfectly balanced, ensuring that 50% of the grades are on individual work and 50% on group assignments. Dr. Ashraf ensured we received assignment feedback and continuously encouraged class discussions. I learned a lot from this course, which was a precious experience.

Heba Sherif

The pace of the course was gradual in difficulty and built up in a way that made learning more accessible and practically applicable to real life. Thanks a lot, Dr. Ashraf, for adding a fun element to the course by helping us to be more heartfully receptive to each other from a humanistic perspective.

Laila Bhagat

I had the opportunity to enroll in the "Developing an Entrepreneur Mindset" course at the American University in Cairo during my MBA with Dr. Ashraf Sheta. It was a genuinely enriching experience; Dr. Ashraf Sheta, our instructor, was exceptional in his knowledge and teaching style, making the course practical and enjoyable. Throughout the course, I gained invaluable insights into what it takes to have an entrepreneurial mindset, including taking the initiative, adapting to change, thinking outside the box, and embracing risk. I also learned to identify unique challenges and opportunities and develop innovative solutions. Dr. Sheta's guidance was instrumental in helping me improve my skills in writing reflection papers and analyzing case studies in various business contexts. The course was efficient and interactive, and I found it particularly enjoyable to collaborate with my classmates on different assignments and projects. I highly recommend this course to anyone interested

in learning more about entrepreneurship, an excellent system every entrepreneur should take. It is well structured, well-paced, and covers critical aspects vital to the business environment. The course was engaging, informative, and motivating, providing the necessary tools and insights to kickstart my entrepreneurial journey. I enjoyed every moment of the system and found it a great inspiration to get going. Whether you are an aspiring entrepreneur or an established business owner, this course will provide the necessary tools and insights to succeed in the ever-changing business environment. In conclusion, I thoroughly enjoyed this course and found it a great source of motivation and inspiration for my entrepreneurial journey.

Raghda Barakat

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