

# Fostering Entrepreneurial Mindset In Higher Education: An Intensive Course Approach In Lebanon

Mabelle Moucachar\*, Halima Alameddine\*, Nermine Masri\*,  
Riad Makdissi\*, Selim Mekdessi\*

*\*(Faculty of Economics and Business Administration, Lebanese University, Lebanon)*

---

## **Abstract:**

Entrepreneurs are frequently viewed as national assets that should be developed, driven, and fully compensated possible<sup>1</sup>. Entrepreneurs have the power to alter how we work and live by enabling the combination of the experimental learning, skills development, forcing individuals to remain learning<sup>2</sup>. Their revolutions could raise our standard of living if they are effective efficient by producing an effect to the lifestyle. In other words, through their business endeavors, entrepreneurs not only build wealth but also jobs and the framework for a thriving society<sup>3</sup>. Therefore, spreading entrepreneurship knowledge is very essential. This study aims to evaluate how nudging university students through an entrepreneurial course can boost their entrepreneurial intentions and help them in improving their business ideas to create them in the future.

A kind of entrepreneurial education in form of an intensive course was implemented for 30 hours to deliver maximum progress of learning concerning how to be a boss in minimal time. Quantitative research was conducted through a Pretest-posttest design on 302 students from different academic backgrounds. This study has demonstrated that encouraging students to take an entrepreneurship course is effective in terms of immediate improvement in theoretical knowledge of entrepreneurship, in aiding the students in the process of finding business ideas, as well as in improving their business idea, if they already had one.

In conclusion, entrepreneurial intention is significantly influenced by entrepreneurship education.

**Keyword:** entrepreneurship, learning, skills development, job creation, education, nudging, entrepreneurial intention, ideation, higher education, university students, being boss.

---

Date of Submission: 14-04-2023

Date of Acceptance: 27-04-2023

---

## **I. Introduction**

In most countries, millions are graduating from universities and join the unemployment category because the labor market cannot absorb these many numbers per year. This example was given to say that this not the case of Lebanon alone, but also to many countries. To show the way, entrepreneurship education is a road to encourage people to build their career alone and create their own jobs and give new chances to other people<sup>4</sup>.

To start with the idea of entrepreneurship according to “Shefsky. Lloyd”, was defined in a broader perspective, where “Entrepreneurs are Made Not Born”, defining “entrepreneur” by dissecting the word entrepreneur in three parts: Entre means to enter Pre means before Neur means nerve center<sup>5</sup>.

Second, learning is a very large word full of meanings in our world and can be defined in many concepts and established in many processes where behaviors will alter after. Moreover, entrepreneurship education is defined where students seek to learn skills, knowledge and are motivated to access a variety of new sets of goals. EE (Entrepreneurship education) can be offered at all levels of schooling from primary till secondary and graduate university programs. From this point, this specific kind of education is highly linked to innovation, where the development of new products, entrance to new markets and finding opportunities from problems are the results of being an entrepreneur<sup>6</sup>.

To better define ideas related to entrepreneurship, to an economist, an entrepreneur is one who combines resources, labor, materials, and other assets and generates value and make it greater than before, also one who introduces changes, innovation, and a new order<sup>7</sup>.

Following, a psychologist can define entrepreneurship activities or the person who chooses this path in life in a different point of view, as a person driven by certain forces: need to obtain or attain something, to experiment, to accomplish, or perhaps to escape from authority of others<sup>8</sup>.

Henceforth, the success of entrepreneurship and the creation of opportunities is highly determined by the social capital a person can have. The idea of social capital here defines itself as a combining theory of

human and financial capital. Social relationships are resources that lead to the development of human capital thus the accumulation of social/financial capital<sup>9</sup>.

Altogether, creating a fertile environment for entrepreneurship education. After dividing it into social structural relationship, it is completed by the cognitive social capital. Cognitive theories explain how ideas affect the human brain and human behaviors are explained through the understanding of the thought processes. In other words, what affects the ideas, affects the behavior and actions<sup>10</sup>.

Here comes the idea of inspiring, altering, changing the idea to adapt to a new behavior if, of course, a preliminary ground exists.

Urge, encourage, push, persuade are all synonyms and similar words to Nudging. Gently and slightly, make it easy to alter someone's ideas to change afterwards their actions<sup>7</sup>. One of the nudging examples is a sign, placed near the door of a room in an office building, which reminds people that they should turn off the light when they leave in order to reduce electricity consumption<sup>11</sup>.

A nudge can be a sign on the road or a campaign or a course given for a period. Any a change in the context of giving something with a predefined goal can be considered as a nudge. Professional business thinking strategies, nudges are considered to be big or small interventions that lead people to act in their own best interests<sup>12</sup>.

Nudging has been used in many fields of life and experimented with educators, governments policy makers, economists, and others. New approaches in entrepreneurship education where nudging is used to make space for new business ideas and widen peoples' choices in their professional working lives<sup>13</sup>.

Consequently, the aim of this article is first to embark on a nudging experiment and evaluate the effectiveness of a course given to university students, on their entrepreneurial skills and adaptiveness. More specifically, a pre/post behavioral nudging experiment to promote and measure the predisposition of university students on entrepreneurship levels. Not long after, measure the post circumstances changes in the students' mindsets and career goals, to deduct how the behavioral intervention affected decisions and students' behaviors. Up until that time, biases and minds shortcuts intervene in all brain's activities impacting the decision-making processes from idea creation till business allocations and operations implementation. University students all over Lebanon, have been through a course over a period of 30 hours which can be considered as intensive training. Some people managed to get through all the training with filling a survey (pre training) and another one (post training). The goal is to know if this training has an impact on students' ideas and decisions or not. And if it has an impact, is it positive or negative.

## **II. Literature Review**

Exploring the relationship between unemployment and entrepreneurship, where the latter's activities are slowed down due to high unemployment rates on one hand and entrepreneurial activities reduce unemployment on the other hand. In times of unification of global economies and progressing globalization, the interest in entrepreneurial activities have emerged more and more in the modern economic cycle. In terms of socio-economic cycle, unemployment can be considered as a main factor to increase entrepreneurship actions<sup>14</sup>.

Different theories supporting entrepreneurial activities such as, innovation, economic, sociological, psychological, opportunity based, resource-based theories<sup>15</sup>.

Entrepreneurship in education is foremost a collective enhancing factor for a student entrepreneurial skills development. Entrepreneurship education (EE) is par excellence a field for advancing and developing societies, a trigger for economic growth, social cohesion, organizational success, and personal fulfillment<sup>16</sup>. Education is part of a civilizing process. With community efforts aiming to continue the upgrading processes of a civilization. Entrepreneurship education provides a theoretical foundation on entrepreneurship and shapes the attitudes, behavior, and mindset of an entrepreneur. The implementation of entrepreneurship education in universities is carried out step by step and sustainable<sup>17</sup>.

The study aims to target university students in Lebanon; first to check the preliminary disposition to entrepreneurship subjects in an educational portrait. Second, a course given over 30 hours with specific content used as a nudge to encourage students to think "entrepreneurially". Third, measure the effectiveness of the nudge and the relationship, if it exists, between the nudge and how well are the students well informed after the nudge. As the behavioral intervention are used to detect entrepreneurial inclination in university students' personalities.

Here comes the cognitive behavioral theories and nudging theories that support these hypotheses. The Nudge Theory is also different from education, legislation, and enforcement – other ways to achieve compliance. The concept of the nudge was first introduced in 2008<sup>18</sup>.

It gained popularity in the private sector, and public health. There are also nudge units operating internationally, such as the World Bank, the UN, and the European Commission. It is important to state the right definition of nudging without any mis understatement or confusion; According to Thaler and Sunstein, a nudge

is any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives<sup>18</sup>.

Nudges are behavioral interventions that subtly push choices towards most "desired" ones. What is meant by desirable here is that in people's behaviors, there exists a tendency to "irrationality" modes of thinking and biases. In the human brain, biases and heuristics (brain shortcuts) affect human thinking processes, decisions and eventually actions. This is an important debate when discussing nudges as a policy instrument, to focus on nudges transparency, the role of preexisting preferences is important. A nudge is used to make personal preferences change in the best way for one's best interest, like when thinking "rationally" and far from biases and mind complications.

Moreover, planned behavior theory is based on the framework of the theory of planned behavior<sup>19</sup>. In the context of entrepreneurship education and nudging experiments, this theory is helpful in analyzing the process of entrepreneurial behavior. This planned behavior theory is a psychological theory that sheds light on the understanding of behaviors going through attitudes, subjective norms and perceived behavioral control. Which will help in focusing on the end result and the likelihood to success paying more attention to the intentions at first.

The role of this entrepreneurship education (EE) and all the nudges is not necessarily for the people to start their own businesses at the short term, it's not a predictor of fate. Although, it is for promoting entrepreneurship among university students and that the latter have the horizon open and have high entrepreneurial intentions.

This study uses the theory of planned behavior to make best of work intention as a substitute for behavior, which is a relevant tool for understanding the development of entrepreneurial inclination through entrepreneurial intention. Since acquiring knowledge can lead to changed behavior, and entrepreneurial intent can be influenced by learning outcomes.

### **III. Methodology**

This research kicks around students' entrepreneurial education and how it can be led by their psychological biases. An entrepreneurship course was conducted to a group of 302 university students from different majors and academic years. 28.1% majored in sciences field, 19.1% comes from business and economics backgrounds, 10.8% engineering fields. An important sample size because once a sample size involved 200 to 300 respondents it is providing an acceptable margin of error and fall before the point of diminishing returns<sup>20</sup>, it was required to the sample to respond to a survey before at the beginning of the process of applying to attend the entrepreneurial course.

According to Qualtrics.com<sup>21</sup>: For a population larger than 10,000 for university students in Lebanon, confidence level 90%, margin of error 5%, the required sample size must be 264. We managed with consistency to reach a sample size of 302 people for more accuracy and validation. Prenudging survey was filled by 388, and we remained consistently clear about the idea that registering, pursuing and completing 30 hours of training will only lead to a certification of attendance and a postnudging survey, which lead to the effective sample size of 302.

Diving into this course, it helps young people develop the abilities needed to be successful entrepreneurs including creativity, critical thinking, perseverance, vision and confidence in order to start building and grow their own idea business to absorb the need of the market.

The intensive course is structured to ignite the interest of students in starting their own businesses at some time in the early future. Students will not be required to have an existing business or to start one immediately following the workshop. The Business Concept provides an overview of what business in general is about and the vital business skills. A tree metaphor is used to explain the dynamics of business in a natural way.

The personal characteristics of successful business owners will be explain added to the Business Ideas by discussing the importance of having a properly defined and analyzed business idea. Many Tools are introduced to generate a business idea, assess the viability of students and to select the best ones.

In addition, a clarification of customer Service is core to the premise of building a successful business. Students will focus on key aspects of customer service needed to build a strong customer base and communication to guarantee a chance to lead for a certain success.

Moreover, the course introduces six main marketing steps, Students are prompted to think about how they conduct market research, and they will develop a simple marketing plan to sell their product.

Financially an important financial part such as separating personal and business expenses; income, expenses and profit; and Money-In / Money-Out.

All the points mentioned before must be generated in a Business Plan that guides the students to integrate all the information obtained so far into a professional accurate clear business plan.

In order to explore the enormous world of entrepreneurship, the art, the science of innovation, the process of developing, organizing, and running a new business to generate profit while taking on financial risk. In a broader sense, entrepreneurship is the process of transforming the status quo by solving the most pressing problems and pain points in our society, often by introducing an innovative product or service or creating new markets<sup>22</sup>. A course in entrepreneurial contribute toraise Standards of Livingby finding more ideal ways to do something, makes Economic Growth generating wealth, Change the Community in order togets a more qualified, educated population by making an immense impact in the community<sup>23</sup>.

By delivering a course in entrepreneurship with a specialist, Education and training designed to develop and encourage entrepreneurial spirit intention and success the community is in a process to learning procedure that prepares target people to be responsible and enterprising individuals. It helps university students specially to develop the skills, knowledge, and attitudes necessary to achieve the goals they set out for themselves. Evidence also shows that people with entrepreneurial education are more employable<sup>23</sup>.

Moreover, it is important to understand the whole process, how students absorb educational material with their own and exclusive biases? How can it be led, directed? Are they able to straight up their entrepreneurial inclination?

All of these questions were put into a timeline sequence, a key frame defined as: Mobilize by applying to the course and complete the pre survey, engage this stage in the timeline is manifested by attending to the course and absorbing knowledge regarding entrepreneurship, follow through concept guaranteed by a post survey to track results made by the course considered as the nudge.

The Pre-Test and Post-Test Surveys were conducted during this study before and after the course, these tests are a common practice in the surveying world. In the Pre-Test survey baseline data is collected. Then, at a later date, after students take the course of 30 hours, the Post-Test survey collects follow-up information after some treatment (knowledge and perception about entrepreneurial notions) has been applied.

A questionnaire is a research instrument that consists of a set of questions or other types of prompts that aims to collect information from a respondent. A research questionnaire is typically a mix of close-ended questions and open-ended questions. The data collected from a questionnaire can be both qualitative as well as quantitative in nature. A questionnaire may or may not be delivered in the form of a survey, but a survey always consists of a questionnaire, that best method used toobserve, describe, conceptualize, interpret and go deeper into collecting insights from specific concepts or phenomena.

In a survey questionnaire, you can gather a lot of data in less time.

There is less chance of any bias creeping if you have a standard set of questions to be used for your target audience. You can apply your logic to questions based on the respondent's answers, but the questionnaire will remain standard for a group of respondents that fall in the same segment. Also, the responses can be compared with the historical data and understand the previous in respondent's choices and experiences, survey is a crucial data collection method.

Using a statistical program SPSS (Statistical Package for the Social Sciences) is a software program used by researchers in various disciplines for quantitative analysis of complex datato recognize differences between results, the opportunities for statistical analysis are practically endless<sup>24</sup>.

T test is a statistical test that is used to compare the means of two groups. It is often used in hypothesis testing to determine whether a process or treatment actually has an effect on the population of interest, or whether two groups are different from one another<sup>25</sup>.

In order to track results and findings by a quantitative way a data analysis will continue in the following.

#### **IV. Discussion**

One evaluation technique that is used to draw on students' existing knowledge and gauge how well they have retained the material in a particular course is the pre-test and post-test process. Numerous educational applications have been extensively employing this procedure as a tool for assessment.

The results of the pre-post testing were divided into 2 categories: The gained knowledge from the course and the biases of the enrolled students, which will now be discussed in details through tables and charts.

The figure no 1 shows the awareness of the participants of the meaning of "being your own boss". This expression has been mistaken with being dominating, oppressive and being a business manager. While in fact it's about leading your own business. In the pretest the participants showed a high awareness with 89 % who chose "lead your business" as a meaning of be your own boss. This percentage has raised in the pretest to attain 95.4 %, which means that participating in this course was successful in raising the awareness about this topic.

**Figure no 1: Understanding of "Be your own boss" expression**

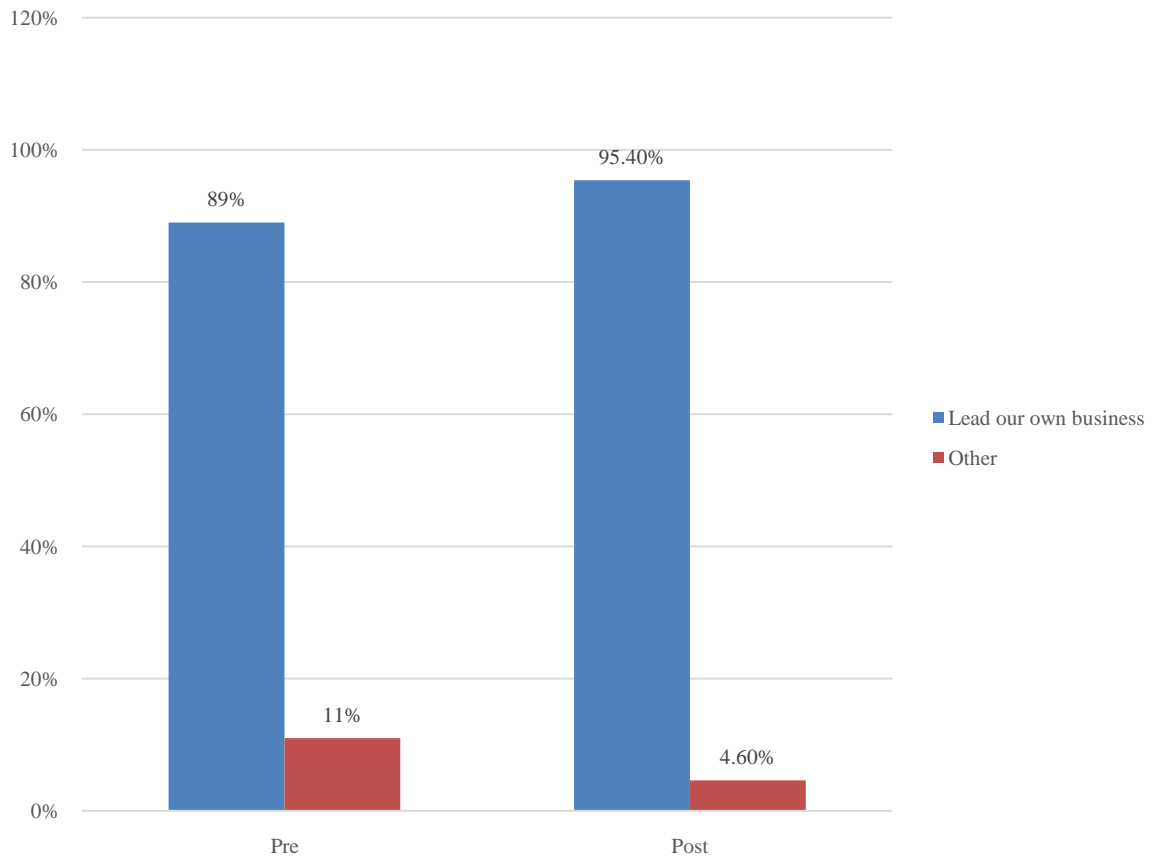
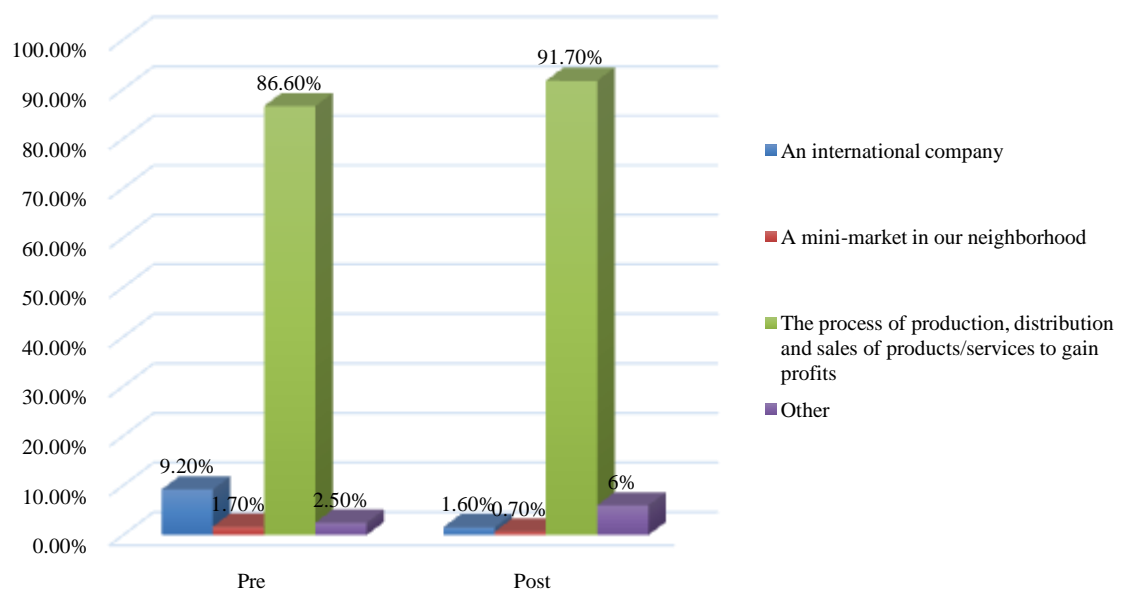


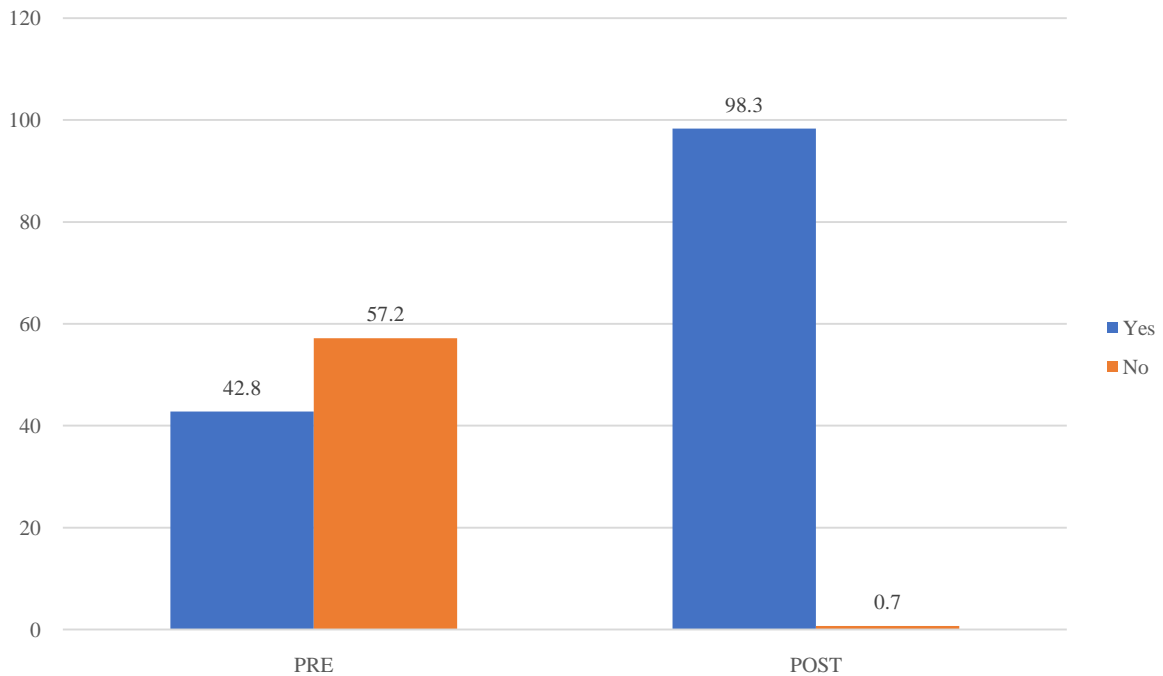
Figure no 2 shows how the answers of the students were when asked about the concept of business: 86,6 % of students said that a business is the process of production, distribution and sales of products or services to gain profits. This percentage has raised till 91.7% in the post test.

**Figure no 2: Concept of a business**



**Figure no 3** shows that it's not enough to declare that you want to increase your turnover or open two new branches. That's vague thinking. The truth is, the best goals in business are SMART goals. SMART goal is an acronym which stands for Specific, Measurable, Attainable, Realistic and Timely<sup>26</sup>. SMART goals are strategically designed to provide structure and support to any business project, as well as to clarify what you want to achieve - and by when. Figure 3 shows that before the course, only 57% of the students knew what a SMART goal was. Compared to the post test result, this percentage has risen to 98.3 %. This reflects that the course was effective in terms of content.

**Figure no 3: Knowledge of SMART goal setting**



**Figure no 4:** Benjamin Franklin once said, "If you fail to plan, you are planning to fail"<sup>27</sup>. A business plan is a crucial strategic tool for entrepreneurs. A good business plan not only helps entrepreneurs focus on the specific steps required for their business ideas to succeed, but it also assists them in meeting both short-term and long-term goals<sup>28</sup>. When asked about what to do before starting their own business, 91.2 % of the students in the pretest declared that they believe that business planning and market research are the essential activities before starting a business. This percentage has risen in the post test to 95.7 %, which shows that after the course the student are now more aware about the importance of the business planning and market research.

**Figure no 4: What to do before starting your own business**

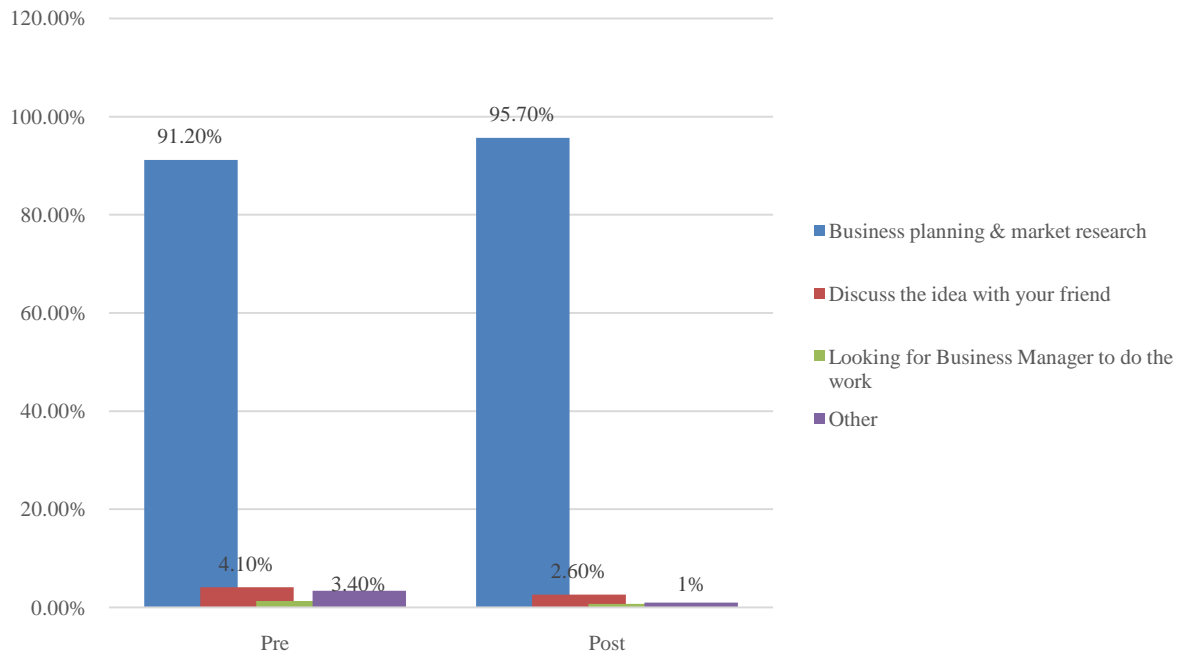
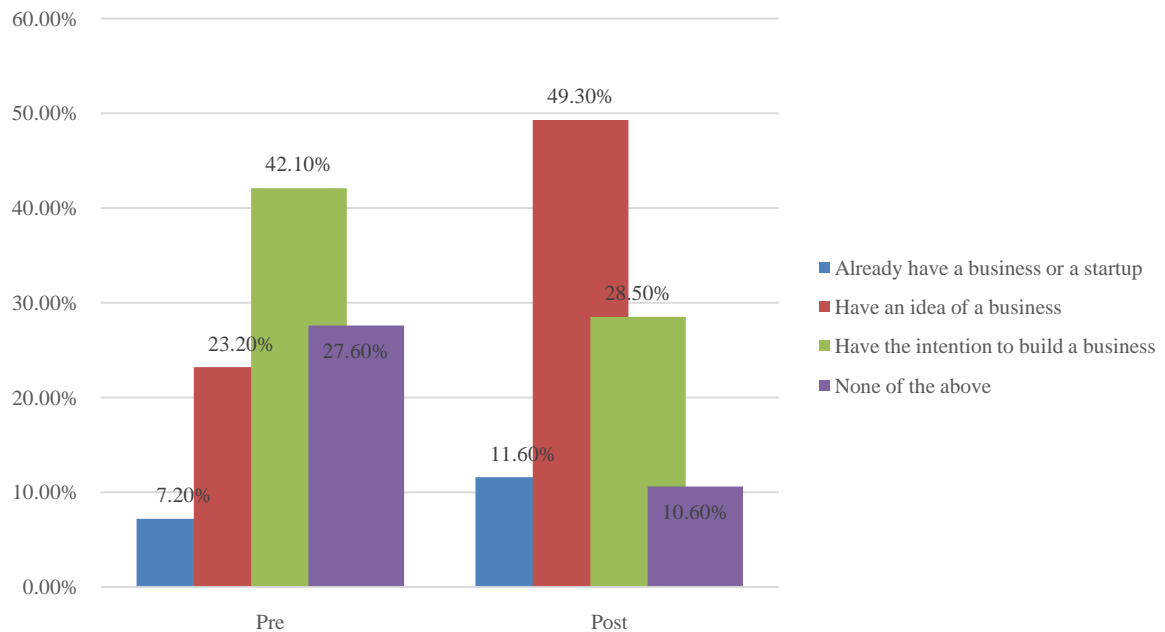


Figure no 5 For a better positioning of the participants in business creation stages, participants were asked in which stage they were post and pre the course. Before the course 42.1 % of the students had the intention to build a business, 23% of business and 7 % already had a business. In the post test, these percentages have changed as follows: 49.3 % have an idea of business, 28 % have the intention of building a business and 11.6 % already have a business. A decrease in the percentage of students who have intention to become entrepreneurs and at the same time an increase in the percentage of students who have a business idea and who already have a business were recorded. This means that the students who had intention to become entrepreneurs before the course have succeeded in finding a business idea during the course.

**Figure no 5: Stage of business creation**



To better understand the impact of the entrepreneurial course on the knowledge of the enrolled students, the results of the questions related directly to the given material were grouped in table 1. This table shows the pre and post mean for each question and the difference between them. The mean differences show that the students after the nudge have gained more knowledge about entrepreneurship. Alpha of significance of each pair of questions is less than 0,05 for all the questions, which means that a difference between the averages pre and post exists.

**Table no 1: T-paired test for questions about knowledge of the content of the entrepreneurial co**

Questions	Pre-Mean	Post-Mean	Mean difference	Sig. (2-tailed)
How important is the factor “customer” to the success of your business?	4.4950	4.6977	-0.2027	0
Do you still care for “customer service” if your product/service is very high quality made?	4.4485	4.6445	-0.196	0.001
The Marketing Mix consists of	1.7774	2.4153	-0.6379	0
Entrepreneurship is strictly for Business Major	2.2857	1.8239	0.4618	0
When you want to start your own business, what do you need to do?	1.0764	1.0399	0.0365	0.019
Business owner should separate personal expenses from the business expenses?	4.4983	4.7907	-0.2924	0
In what stage are you?	2.8937	2.3787	0.515	0

Figure no 6 represents the responses of the students before and after the nudge, which is the integration of the entrepreneurial course when questioned about their source of motivation at work, note that it was a checkboxes question. It’s clear that there is a change between the pre and post results, the students now have more knowledge and can see from another perspective what could be a source of motivation for them.

**Figure no 6: Source of motivation at work**

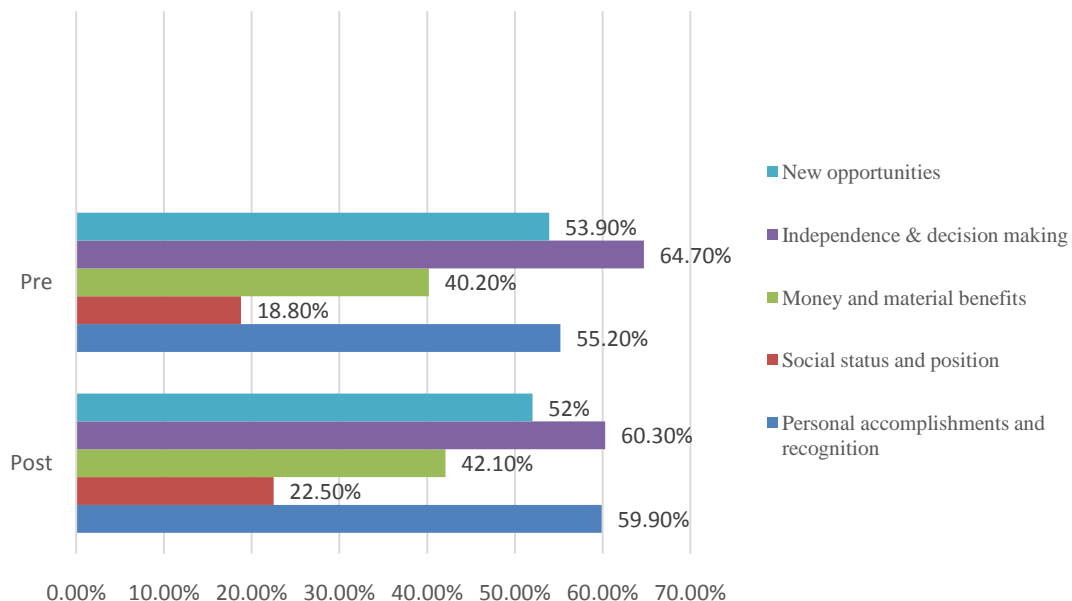




Figure no 7 displays the answers of the students to a checkboxes question regarding the factors that represent challenges or barriers for them when taking the step of creating their own business. Not Having enough money was the most common answer with 56.7 %, then in the second-hand taking risks was the number 2 challenge for them with a percentage of 40,7%. 39,4 % of the respondents expressed that they had a fear of failure, 27,8% claimed that not having a business idea was a barrier for them, while 27.3 % considered that not being a business student was a challenge for them. A minority with 18 % voted for not having a location. All these percentages have lowered in the post test, which shows clearly that the nudge was successful and that the course has helped the students to overcome some of their fears and made them reconsider their considerations for the factors that represent challenges for them. And here, it's outstanding that not being a business student is not a challenge anymore for them after the course because they received the knowledge they were lacking to start their own business. And also, that after the course, the students have excelled in finding business ideas which we can see from the percentage that has lowered from 27.3 % till 9.3 %.

**Figure no 7: Biggest challenge when starting your own business**

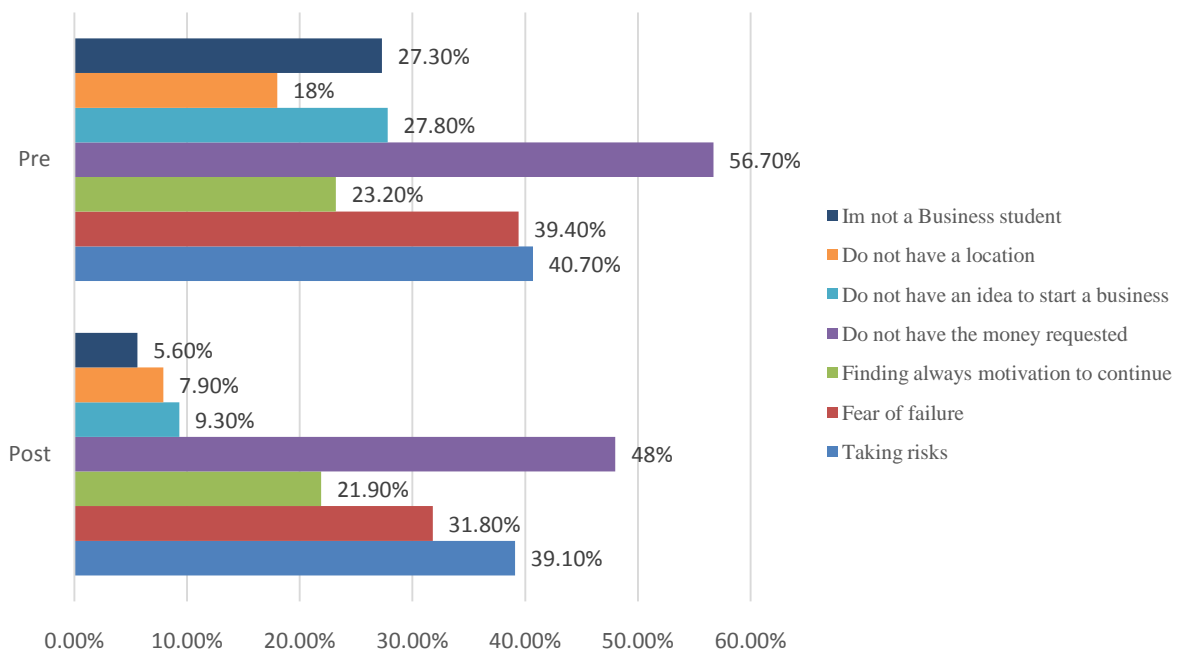


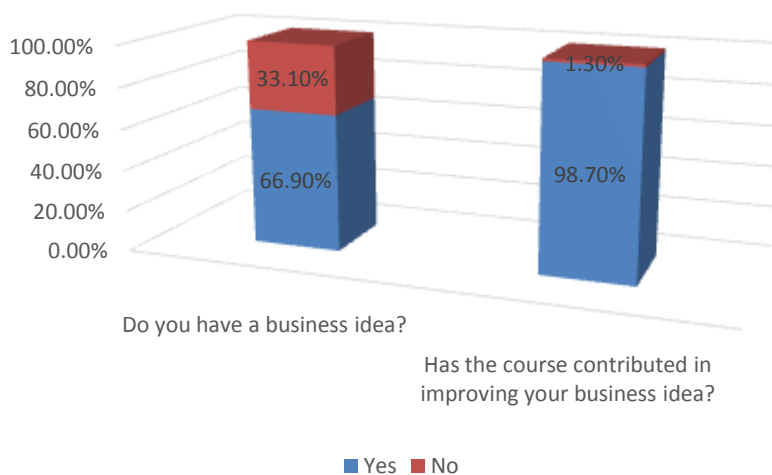
Table 2 shows the statistical results of each question related to the psychology traits and biases of the respondents. The pre-mean is the average of the answers on the pretest and the post-mean is the average of the answers on the posttest. The mean difference is the subtraction of the pre-mean average from the post-mean average and it shows the direction of change of these values. To study the significance of the pre-post variations, the alpha of significance was also presented, and contrary to what was recorded in table 1 regarding the knowledge of the participants, when talking about psychological traits and biases it is not always the same. The alpha of significance of the questions 1,2,8,9&10 are greater than 0,05 which means that there is no significant difference between the results of the pretest and the post test. This is not a surprising result: making a difference in a personality is so enduring and one obvious possible reason is genetics<sup>29</sup>, but this does not mean that a personality is stable, it can also be influenced by the environment and life events as reflects the alpha of significance of the questions 3,4,5,6&7, which are less than 0.05 and reflects that these factors were influenced by after the course.

**Table no 2: T-paired test that reveals the psychological traits of the respondents**

Questions	Pre-Mean	Post-Mean	Mean	Sig. (2-tailed)
1-What first comes to your mind when you think about a business plan?	2.1694	2.0465	0.1229	0.056
2-Please choose one option that suits you most	1.5980	1.5681	0.0299	0.500
3-What is the definition of risk to you?	2.1262	1.4817	0,6445	0
4-The process of continuation of decision making can fatigue the manager	3.2392	2.6146	0,6246	0
5-If your first business idea fails, how much are you ready to try again?	3.439	3.6844	-0,2454	0
6-You are willing to make partnerships in Business	3.5017	3.7010	-0,1993	0.039
7-If you get lost on a road trip, you will	1.8638	2.0731	-0,2093	0.001
8-If you already believe and are sure about something, then you receive a contradicting information about that belief, you tend to	1.9236	1.9169	0.0067	0.764
9-Choose the price that suits you best for a popcorn cup	1.2292	1.2425	-0,0133	0.706
10-Choose the price that suits you best for a popcorn cup	1.7874	1.8738	-0.0864	0.205

Figure no 8: The aim of this research is to study how an entrepreneurial course can be a nudge for the students to start their own business and here as can be seen in the figure 8, 66.9 % of the enrolled students already had a business idea and 98.7 % of them have stated that they have benefited from the course to improve and develop their ideas. the statistical results of each question related to the psychology traits and biases of the respondents. The pre-mean is the average.

**Figure no 8: Pre-Existence of a business idea and capability of improving this idea**



**V. Conclusion**

To contribute in highlighting the link between students' entrepreneurial inclination and taking an entrepreneurial course, a nudge was conducted in a sample size of 302 students consecutively to track the effect of an educational material of entrepreneurship.

The current research study's findings show that the entrepreneurial course has an impact on entrepreneurial inclination of students which could be clearly noticed by the difference between pre and post course results. The majority of students in the sample are entrepreneurial-inclined. They appear to have strong entrepreneurial characteristics and skills, and they are eager to start a new business.

Participating in this course was effective in raising the awareness of the students about this topic, in terms of a better understanding of the business concept, knowledge of SMART goal setting and shedding the light on the importance of business planning and market research before business creation.

An increase was also recorded in the number of students who have a business idea after the course and a decrease in the number of students who had intention to become entrepreneurs. This means that the students who had intention to start their own business before the course have succeeded in finding a business idea during the course.

They now have more knowledge and can see what could be a source of motivation for them from a different perspective. A decrease in the percentage of what were the biggest challenges when starting a business also explains that the students are more confident about their entrepreneurial knowledge and practices.

Regarding the personal characteristics, making a difference in a person's personality is so long-lasting, and one obvious reason is genetics. However, this does not mean that a person's personality is stable; it can also be influenced by the environment and life events. That's why the results showed that some characteristics have altered while some others were still the same after the course. Students have also benefited from the course to improve and develop their existing ideas.

All of the above invites us to enlighten the importance of entrepreneurship education which should become an essential component of higher education curricula. The advantages of entrepreneurship go beyond the companies they start. Entrepreneurs enhance people's lives, communities, and the economy as a whole. They have played a significant role in promoting social change and enhancing people's quality of life. Entrepreneurship has been incorporated into many programs at universities and colleges in an effort to give graduates the fundamental information and abilities in entrepreneurship as well as to shape their attitudes and goals.

Mental, emotional, psychological, sociological, intellectual sides are involved to be developed in students' personality in order to process knowledge in early years. Age is often associated with a decline in cognitive abilities that are important for maintaining functional independence, such as learning new skills. Many forms of motor learning appear to be relatively well preserved with age, while learning tasks that involve associative binding tend to be negatively affected<sup>30</sup>.

Valuable knowledge, consciousness, skills in entrepreneurship are beneficial and efficient to be structured during students' age to enable them build a bridge towards a professional future.

As a result, this research has shown that the nudge of students through an entrepreneurial course is effective in terms of immediate improvement in theoretical knowledge of entrepreneurship, in helping the students in the process of finding business ideas as well as improving their business idea if they already had any. In conclusion, entrepreneurial intention is significantly influenced by entrepreneurship education.

There are two major limitations in this study that could be addressed in future research. First, the percentage of the participants who filled the pretest is not the same regarding the posttest: 100 % of the students have filled the pretest while 77.85 % have also filled the posttest. The second limitation is the limited time of the course and the fact that it was an online course. Being part of a community and physically attending classes increases accountability. If a student does not feel they are getting the proper guidance, they may not have enough self-discipline to fully engage in the lessons themselves. Moving to virtual, real-time classes instead of just online courses gives a greater sense of accountability, which could be a potential option for maintaining the response percentage at the end of the course<sup>31</sup>. Also, expanding the course over a longer period of time could be considered in future research which is expected to be more effective and give a better result.

It is highly recommended for higher education institutions to have such courses in the curricula and that all institutions that offer entrepreneurship education to consider the use of pre- and post-tests as a useful direct method of course effectiveness evaluation.

---

## References

- [1]. Alameddine, Halima & Masri, Nermine & Almouchar, Mabelle & Makdissi, Riad & Mekdessi, Selim. (2022). The Personal Traits of an Entrepreneur and the Main Factors Leading to Success; Empirical Study on Entrepreneurs in Lebanon. *IOSR Journal of Business and Management*. 24. 28-37. 10.9790/487X-2411062837.
- [2]. Masri, Nermine & Almouchar, Mabelle & Alameddine, Halima & Makdissi, Riad & Mekdessi, Selim. (2022). Evaluating Students Entrepreneurial Capacity of University Students in Lebanon. *IOSR Journal of Economics and Finance*. 13. 11-19. 10.9790/5933-1306021119.
- [3]. Martens, Jeanne & Program, Entrepreneurship & Alvarado, Juan & Wakkee, Ingrid. (2021). The Path To Entrepreneurship: Searching And Learning From Role Models.
- [4]. Xu, Miaomiao & Li, Jun. (2023). Practical Model of College Students' Innovation and Entrepreneurship Education Based on Social Cognitive Career Theory. 10.1007/978-3-031-28787-9\_1.
- [5]. Shefsky, L. E. (2005). Entrepreneurship. In M. C. Horowitz (Ed.), *The Quotable Executive: Words of Wisdom from Warren Buffett, Jack Welch, Shelly Lazarus, Bill Gates, Lou Gerstner, and More* (pp. 73-79). Skyhorse Publishing.
- [6]. Lu, Huidi & Chen, Fengdie & Song, Xiaona. (2023). Innovation and Entrepreneurship in Collaborative Education in Colleges and Universities. *South Asian Journal of Social Studies and Economics*. 18. 14-21. 10.9734/sajsse/2023/v18i2652.
- [7]. Makdissi, Riad & Abiad, Zouhour & Almouchar, Mabelle. (2020). Promoting Entrepreneurship Using Behavioral Intervention in Association with "Tripoli Entrepreneurs Club". *Open Journal of Business and Management*. 08. 517-531. 10.4236/ojbm.2020.82031.
- [8]. Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4), 353-385. doi: 10.1080/13594320701595438.
- [9]. Aldrich, H., & Zimmer, C. (2015). Entrepreneurship through social networks. *The Oxford Handbook of Entrepreneurship and Collaboration*, 160-174. doi: 10.1093/oxfordhb/9780199673334.013.7.
- [10]. Gerrig, R. J. (2013). Cognitive psychology and social behavior. In A. W. Kruglanski & W. Stroebe (Eds.), *Handbook of the History of Social Psychology* (pp. 337-355). Psychology Press.
- [11]. Thaler, R. H., & Sunstein, C. R. (2008). Nudge: Improving decisions about health, wealth, and happiness. *Journal of Economic Perspectives*, 21(3), 167-187. doi: 10.1257/jep.21.3.167.
- [12]. Souza-Neto, Valério & Marques, Osiris Ricardo. (2022). Behavioural Nudging. 10.4337/9781800377486.behavioural.nudging.
- [13]. Neergaard, Helle & Robinson, Sarah & Jones, Sally. (2020). Transformative learning in the entrepreneurship education process: the role of pedagogical nudging and reflection. *International Journal of Entrepreneurial Behaviour & Research*. 10.1108/IJEBR-04-2020-0235.
- [14]. Mekdessi, Selim & El-Hawli, Sara & Makdissi, Riad. (2021). The impact of current crises on Employment -Empirical Study on Food Sector SMEs in North Lebanon. *IOSR Journal of Economics and Finance*. 12. 28-47. 10.9790/5933-1205085847.
- [15]. Masoomi, Ehsan & Rezaei-Moghaddam, Kurosh & Karami, Ezatollah & Hayati, Dariush & Fatemi, Mahsa. (2022). Development of an opportunity-based model of rural entrepreneurial process. *Journal of Global Entrepreneurship Research*. 12. 10.1007/s40497-022-00322-4.
- [16]. Jardim, J., Bártolo, A., & Pinho, A. (2021). Towards a global entrepreneurial culture: A systematic review of the effectiveness of entrepreneurship education programs. *Education Sciences*, 11(8), 398.
- [17]. Putro, H. P. N., Rusmaniah, R., Mutiani, M., Jumriani, J., & Subiyakto, B. (2022). The relevance of social capital in efforts to develop entrepreneurship education. *Journal of Education and Learning (EduLearn)*, 16(3), 412-417.
- [18]. Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Yale University Press.
- [19]. De Ridder, D., Kroese, F., & van Gestel, L. (2022). Nudgeability: Mapping conditions of susceptibility to nudge influence. *Perspectives on Psychological Science*, 17(2), 346-359
- [20]. Adhikari, Bikram. (2023). Sample Size Calculation.
- [21]. <https://www.qualtrics.com/blog/calculating-sample-size/>
- [22]. Prince, Sam & Chapman, Stephen & Cassey, Peter. (2021). The definition of entrepreneurship: is it less complex than we think?. *International Journal of Entrepreneurial Behavior & Research*. 27. 26-47. 10.1108/IJEBR-11-2019-0634.
- [23]. Hongdiyanto, Charly. (2021). The analysis of entrepreneurship course towards entrepreneurship intention of the students. *Journal of Management and Business*. 20. 10.24123/jmb.v20i1.467.
- [24]. Kundu, Arnab. (2023). How to Use SPSS: Let's Learn Variables, Data Uploading, and Data Analysis. 10.13140/RG.2.2.35975.06560.
- [25]. Pond, Gregory & Caetano, Samantha-Jo. (2022). Essential Statistical Tests. 10.1007/978-3-319-52636-2\_118.
- [26]. Weissman, David. (2023). Achievement Goal Perception: An Interpersonal Approach to Achievement Goals. 10.31234/osf.io/uzn42.
- [27]. Franklin, Benjamin. (2011). *The Life of Benjamin Franklin*, Written by Himself. 10.1017/CBO9781139060301.
- [28]. Gutterman, Alan. (2023). *Business Plan Preparation*.
- [29]. Pfeffer, Ines & Rhodes, Ryan. (2023). Physical Activity Across the Life Span: Personality, Physical Activity, and Sedentary Behavior. 10.1007/978-3-031-03921-8\_15.
- [30]. Seidler, R. D. (2010). Aging and motor skill acquisition. *Handbook of the Psychology of Aging*, 6, 279-299. doi: 10.1016/B978-0-12-380882-0.00014-2.
- [31]. Mekdessi, Selim & Makdissi, Riad & Almouchar, Mabelle. (2021). Challenges and Perspectives of Online Teaching: A Lebanese Empirical Study. *IOSR Journal of Business and Management*. 23. 20-32. 10.9790/487X-2304072032.

Mabelle Mouchar, Halima Alameddine, Nermine Masri, Riad Makdissi, Selim Mekdessi. "Fostering Entrepreneurial Mindset In Higher Education: An Intensive Course Approach In Lebanon." *IOSR Journal of Business and Management (IOSRJB)*, Vol.25, No. 04, 2023, pp. 60-71.