

RESEARCH ON THE TEACHING RESOURCE REFORM OF INNOVATION MANAGEMENT AND ENTREPRENEURSHIP EDUCATION FOR BUSINESS ADMINISTRATION MAJORS

By

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ABSTRACT

Current Chinese higher education study and performance has focused on entrepreneurship and innovation. Innovation and entrepreneurship curriculum today can benefit from a shift in focus toward Internet-based approaches that can open up new vistas for both academic inquiry and hands-on experience. Internet innovation and entrepreneurship education in China is examined in this paper, which concentrates on the effective interventions of this curriculum, as well as the basic content of syllabus configuration, instructing strategy revision, teacher team-working, and Internet innovation and entrepreneurship performance. We implement artificial intelligence (AI) based learning platform in this study. Initially, the student data is collected and they are provided with the education using Improved Genetic Algorithm (IGA) based educational platform. The model is optimized using Dynamic Fuzzy Colony Optimization (DFCO) algorithm. The proposed system quality is assessed using Delphi technique. The statistical results indicate that the proposed method has greater efficiency of innovation and entrepreneurship education at colleges and universities.

Keywords: Innovation and entrepreneurship education, artificial intelligence (AI), Improved Genetic Algorithm (IGA), Dynamic Fuzzy Colony Optimization (DFCO), Delphi technique

INTRODUCTION

Students who major in business management graduate with a solid foundation in economics, law, and business management, which are in-demand skills in the workplace. Students enrolled in this course can gain knowledge of a wide range of business topics, including human resources management, finance, logistics, production, marketing, and corporate strategy. Young people's high rate of unemployment can be attributed in large part to a dearth of entrepreneurial skills and knowledge. The demand for outstanding management talents from all walks of life is high.

It's no secret that entrepreneurship has been crucial to the economic and social progress of several industrialized nations. The era of "mass invention and entrepreneurship" has been driving the growth of today. Because of this, many schools and institutions in China are merging professional education with entrepreneurial and innovation teaching. Entrepreneurship and

innovation benefit from the business administration profession's conceptual basis. Figure 1 depicts the various entrepreneurship skills required for business administration students.

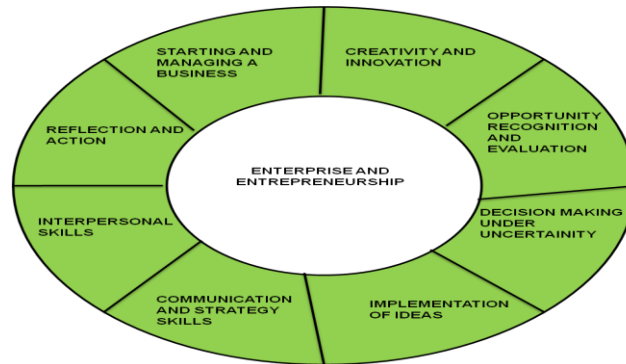


Figure 1: Different Entrepreneurship skills required for students

Course teaching is the basic approach to talent cultivation. Scientific, reasonable, high-quality and innovative teaching design is the basis for ensuring the effectiveness of the curriculum. With the progress of the times, the teaching design of management courses also needs to advance with the times. Therefore, increasing the professional group platform curriculum construction, broadening the teaching curriculum resources, and then cultivating the formation of high-quality, wide-caliber business administration talents are the current direction of the management design of the management courses. Business administration curriculum changes have the potential to encourage more students to create their own businesses and improve their capacity for creative problem solving. In China, the field of entrepreneurship education is still in its infancy. It still has not evolved a teaching method with quality standards that is globally accepted. As the traditional teaching model only pays attention to the instillation of hypothetical understanding, the cultivation of students' practical ability is relatively lacking. Hence, it is necessary to implement innovative technologies in entrepreneurship education. Recently, adaptive educational systems are gaining importance in teaching and learning environment. Individual characteristics must be taken into account while attempting to create the optimum online class. The production of successful adaptive e-learning systems relies on the identification and consideration of the needs and strengths of each individual student.

In this paper, we developed an educational platform using IGA optimized by DFCO (IGA+DFCO) for providing entrepreneurship education to business administration majors. Then we investigated the effect of the developed learning platform on the business administration students. The remaining sections of the article are organized as follows. Section II contains the necessary literature as well as the issue statement. The materials and procedures are shown in Section III. The findings and comments are included in Section IV. The conclusion of the recommended work is offered in section V.

LITERATURE SURVEY

Farashahi and Tajeddin (2018) compared the common teaching methods namely simulation, case study and lecture in the business education. The perceived usefulness of various instructional strategies for enhancing students' problem-solving skills, interpersonal skills, and self-awareness was evaluated among a selection of 194 UG & MBA students. A study by Jena 2020 looked at how students' attitudes toward entrepreneurship education at Indian

universities/colleges affected their entrepreneurial intentions by examining students' attitudes toward entrepreneurship education on cognitive, affective, and behavioral levels. Twelve barriers to entrepreneurship and innovation education were highlighted by [Ding \(2017\)](#). One of the most important aspects affecting college students' ability to learn about innovation and entrepreneurship is the need to raise their level of awareness of these concepts and the motivation that drives them.

[Sholihin, Sari, Yuniarti, and Ilyana \(2020\)](#) set out to examine virtual reality (VR)-based learning media for educating corporate responsibility in universities. Accounting students from the University of Economics, Yogyakarta State University, Indonesia, are using VR-based learning media in their business ethics class. [Hockerts \(2018\)](#) found that via a method of practical process in which learners co-create shared communities, social entrepreneurship education may boost students' inclination to begin social businesses. For the research, data was obtained from 175 students in Masters level coursework at a Danish business college. [Zhang](#) tracked the structural reforms overall. Even though the findings of this study can indeed be applied to all business management major leagues at all higher education institutions because the application framework and specialty characteristics of different business administration majors are not the same, they can represent the trends to focus and developments of business administration majors' entrepreneurial educational reforms. [Komarova, Tsvetkova, Kozlovskaya, and Pronkin \(2019\)](#) investigates the development of innovative and entrepreneurial skills in the context of network, with the goal of providing useful information for the development of inventive and creating the project in business management. Guidance inventive and entrepreneurial talents who are adaptable to the development of modern society in the context of the Internet is an essential path of business administration education reform at this time.

[Sun, Li, and Xu \(2020\)](#) concentrates on the effective interventions of World wide web entrepreneurial education, including the basic components of curriculum set - up, teaching technique restructuring, teacher teamwork, Web entrepreneurship practises, and the innovation and entrepreneurship education system of Chinese higher education, based on an analysis of the ideas, qualities, and level of growth of Internet innovation and entrepreneurship education in China ([Lin, 2021](#)). At the same time, industry experts' involvement is still insufficient, and a range of linked vocational education attained with the support of trade unions, scientific and technology groups, Internet firms, and other industry resources needs to be increased. [Mody and Bhoosreddy \(1995\)](#) examined that entrepreneurship education in higher education in Iran faces economic, political, social, and cultural problems. This article also provides some strategies for overcoming the obstacles and supporting and growing entrepreneurship in higher education. Policy-makers, instructors, learners, and graduates entrepreneurship will benefit from the conclusions of this research. Participants can use findings of this study to help them make better decisions about how to improve entrepreneurial skills in Iran's higher education system ([Bing & Ting, 2021](#)).

[Towers, Santoso, Sulkowski, and Jameson \(2020\)](#) described about the training of business management talents, this article continues to study and expand the teaching reformation, gradually forming a foundation for distinctive instruction learning. Furthermore, the deployment of the professional business administration group's development has yielded excellent outcomes. It is envisioned that colleges and universities will aggressively use part of its strategy to encourage business administration experts' innovation and entrepreneurship ([Zhiwei & Xu, 2021](#)). The formation of professional groups is a significant step forward and a valuable resource for educational change. Instructors and learners must regularly update their curriculum concepts to suit the new needs of the community and businesses while implementing specialized instructional

design. Increase the focus of curriculum design on practical ability, and progressively enhance evaluation method until the goal is reached.

Some illnesses have numerous keratocysts, according to [Mody and Bhoosreddy \(1995\)](#). Several odontogenic keratocysts were found in a 12-year-old female patient. There were no additional abnormalities discovered that may point to an underlying disorder. It has been established by [Garg \(2020\)](#) that customized medicine makes use of fine-grained data in order to pinpoint abnormalities. The use of 'Digital Twins' in engineering was used to study the philosophical and ethical implications of these emerging data-driven health care systems. Digital approaches were used to connect physical objects, representing their current status in real time. Based on the data structures and interpretations put on them, moral disparities may be discerned. The ethical and societal implications of digital twins are discussed ([Talha, Wang, Maia, & Marra, 2022](#)). The healthcare industry is increasingly reliant on data. As a social equaliser, this method provides effective equalising measures. According to Ahmed, Bilal, and Aatiqa Ali's research published in 2020, allergic rhinitis will remain a widespread problem for decades to come. Traditional Chinese or Chinese–Western medicines are often used by Taiwanese physicians to treat it. Allergy rhinitis was the most common respiratory ailment treated with traditional Chinese medicine in outpatient settings. Traditional Chinese medicine and Western medicine are compared in Taiwan for the treatment of allergic rhinitis. It was [Shahabaz and Afzal](#) depiction of the use of high-dose-rate (HDR) brachytherapy that avoided radiation, allowed outpatient treatment to take place, and shortened diagnostic times. By modifying the delay at each dwell point, a single-stepping source might potentially improve dose dispersion. It is essential that HDR brachytherapy treatments be carried out correctly since the reduced processing times need no error-checking and mistakes might cause harm to patients. To enhance the rural environment, [Li \(2022\)](#) introduced a sewage treatment method and technology. In surface soil from vegetable crops in Zamfara State, Nigeria, physicochemical and organochlorine pesticides were discovered. The test procedure and the results were examined using QuEChERS and GC-MS.

[Ndou, Mele, and Del Vecchio \(2019\)](#) discussed how web-based content analysis of European university projects that have started including modules and information relevant to entrepreneurship into their tourist educational programmes might help close this gap. Specifically, the paper will focus on the initiatives that have been taken in Europe. In specifically, the purpose of this article is to analyze how the primary aspects connected to EE are being organized inside these tourist education programmes and to provide guidance on what would constitute an efficient education route for tourism entrepreneurs.

[Wu, Yuan, and Pan \(2018\)](#) described that the research, animated presentations were more successful in attracting financial backing than those that did not make use of animated movies. It illustrates the fact that films have been made that assist entrepreneurial teams in better communicating their company ideas to investors in a manner that is well-thought out. In addition, the findings of the research indicate that people who come up with a concept for a company do not necessarily have a substantial effect on the investment choices made by the firm. Our results cast doubt on the premise that people are biased in their own judgments of the economic prospects of their own ideas for businesses. In conclusion, the students showed a high level of openness to incorporating novel approaches into the presentation of their business concepts.

[Komarova et al. \(2019\)](#) discusses issues related to the application of corporate information systems and reveals the need of include instruction on appropriate application methods as part of educational programmes geared at aspiring business owners. This research explores strategies to

measure the amount of information system development inside the organization by analyzing insurance firms. The findings are based on the examination of these companies. In order to complete the study, we conducted research on the elements that have an effect on the information systems of the company.

[Bandera, Collins, and Passerini \(2018\)](#) the authors investigated that the impact of technology-supported experiential entrepreneurship education on learners' entrepreneurial intents and attitudes towards risk. Each research conducts a comparison of students who are enrolled in three unique self-selected collegiate entrepreneurship courses. These courses incorporate information and communications technology (ICT) and contacts with business incubator entrepreneurs to varying degrees.

[Wardana et al. \(2020\)](#) described that the link between students' entrepreneurship education and an entrepreneurial mentality, as well as to get an understanding of the role that attitude and self-efficacy play as mediators of this relationship. The technique of sampling that was employed in this investigation is known as a convenience random sample method, and it is quite common in the field of research on entrepreneurship.

[Iwu et al. \(2021\)](#) predicated on quantitative information that was gathered in a cross-sectional fashion from participants who were enrolled at a university in South Africa. The empirical findings demonstrate that the respondent group strongly agrees with the usefulness of entrepreneurship education for economic growth. This indicates that the respondent group is well-versed with the function and benefits of entrepreneurship on a macro level. The research also discovered that a student's propensity to engage in entrepreneurial activity has a somewhat favourable link with their perception of the lecturing team's level of competence. The implication of this is that organizations that provide programmes in entrepreneurship have a responsibility to take on the burden of ensuring that the individuals who teach their students are not only highly competent but also have the ability to stoke the flame of entrepreneurial intention in their respective student populations.

[Thomassen, Middleton, Ramsgaard, Neergaard, and Warren \(2019\)](#) characterised how to review the existing literature on entrepreneurship education in order to know the ways in which context has been discussed, to deduce crucial aspects from prioritised literature and to explore how background can be adjusted to and intended with in entrepreneurship.

[Chang, Shu, Wang, Chen, and Ho \(2020\)](#) investigate the impact that non-IT students' CESE has on their CEIs and the potential role that PT plays in moderating the relationship between the two. College students in Taiwan who had no prior experience in the field of information technology provided a total of 364 valid samples. The use of partial least squares structural equation modelling allowed for the verification of hypotheses (PLS-SEM).

The experience-based entrepreneurship course at a Chinese university, according to [Towers et al. \(2020\)](#), was given to eight separate groups of business students. In order to better serve the worldwide community, the students were given the responsibility of creating initiatives that would benefit them. To better understand the difficulties that Chinese students confront while taking such a course, this research was conducted. There was a lack of familiarity among students with the constructivist method of learning, group work and dynamics, the coupling of taught information to practical tasks, and the reflective process of learning in constructivist education.

Hameed and Irfan (2019) accepted theoretical approach is an education via entrepreneurship model, with the goal of inter-disciplinary E-STEM learning being to integrate entrepreneurial activities into STEM education at the high school level. To investigate the perspectives held by STEM industry leaders with respect to the incorporation of entrepreneurial activities into STEM education, focus group interviews were conducted.

Akhmetshin, Mueller, Chikunov, Fedchenko, and Pronskaya (2019) described that the study is to provide a description of the present state of education about entrepreneurship in Russia in terms of the use of cutting-edge technology. In addition, the purpose of the study is to determine the shortcomings of their implementation process, which may contribute to the discontent of students with the learning process as well as a lack of preparation on the part of students for professional activity. The objective of this study is to assess the efficacy of the novel approaches that have been incorporated into the education programme for four-year students, with the goal of locating the shortcomings of these approaches that may in some way have an impact on the degree to which students are prepared for professional (or, in this particular instance, entrepreneurial) endeavours.

Problem Statement

With the development of society and the intensification of competition among enterprises, employers have increased the recruitment standards for graduates of business administration, with particular emphasis on students' practical abilities and related social experiences. As the traditional teaching model only pays attention to the instillation of hypothetical understanding, the cultivation of students' practical ability is relatively lacking. Therefore, it is imperative to improve the training and innovation of managerial innovation talents and application capabilities.

PROPOSED WORK

This paper is focused on developing an educational platform using AI for providing entrepreneurship education to business administration majors. Internet innovation and entrepreneurship education in China is examined in this paper, which concentrates on the effective interventions of this curriculum, as well as the basic content of syllabus configuration, instructing strategy revision, teacher team-working, and Internet innovation and entrepreneurship performance. We implement artificial intelligence (AI) based learning platform in this study. Initially, the student data is collected and they are provided with the education using Improved Genetic Algorithm (IGA) based educational platform. The model is optimized using Dynamic Fuzzy Colony Optimization (DFCO) algorithm. The proposed system quality is assessed using Delphi technique. Statistical analysis is used to investigate whether student participation in entrepreneurship education through the developed learning platform can increase self-efficacy, entrepreneurial intentions, business administration knowledge, and so on. The flow of the proposed work is provided in figure 2.

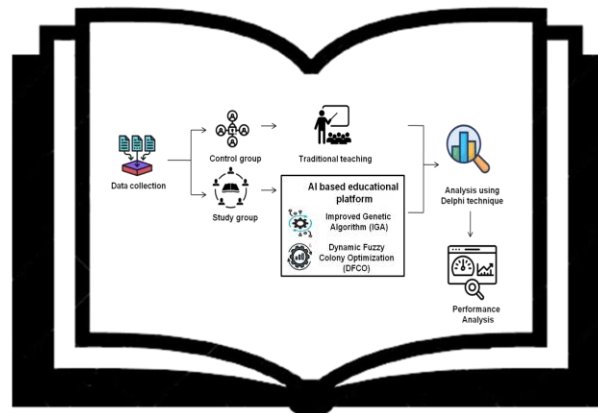


Figure 2: Flow of the proposed research work

Student Selection

Thirty-four business administration students in a Chinese university have selected for this study (Bell, 2020). Each of them was studying a foremost delivered by the business institution, in addition to English minor. The major goal of this university is to develop entrepreneurial graduates. The entrepreneurship education to the students of study group (20 students) is provided through the e-learning platform developed by IGA+DFCO method. The entrepreneurship education to the students of control group (14 students) is provided through traditional lecture based teaching.

Development of AI based educational platform

AI based educational platform is developed using IGA+DFCO method. Users of educational platforms should be able to learn in a way that is convenient for them. Therefore, it is essential to evaluate students' emotional states, their degree of knowledge, their interpersonal skills and attributes, and respective styles of learning in order to construct appropriate student characteristics and models. It is imperative that this data is used effectively to produce an effective e-learning context. IGA is applied at the first stage of developing a learning platform to find the Entrepreneurship content for a learner's profile. IGA's intelligent e-learning platforms can be adapted and adjusted to meet the needs of specific learners, as per DFCO's goal.

Improved Genetic Algorithm

In this study, IGA is used to locate Entrepreneurship knowledge for a learner's characteristics at the early process of growth a learning platform. The students' information is first gathered and maintained. When we start looking for Entrepreneurship content, we are looking for papers that are applicable to the learner's biography, just as if the learner's profile were a question that we are trying to answer. IGA's goal is to identify a single piece of Entrepreneurship knowledge that is best suited to a particular learner's needs. Using the calculated similarity between a learner's profile and each entrepreneurial content item in our database, we then sort our findings in decreasing order to retain the first eight items as the beginning population. Selecting employees that are best suited to the IGA's working environment is what we term this phase.

Individuals in IGA are the appropriate entrepreneurship contents, and the fitness value to assess an individual seems to be the cosine similarity for the challenge of researching the best entrepreneurship content for such learner profile. When an individual's binary chromosomal code is used, each gene delivers a topic from an entrepreneurial course, such as business management or creative talent. If the concept is included in the Entrepreneurship material, each gene has a value of 1 and the number of chromosomes (genes) is equal to the amount of conceptions in the complete entrepreneurship course. We employ the chromosome as an information retrieval system's vector representation since we evaluate the relationship between the profile and every generation's greatest important entrepreneurship content after every generation of the IGA.

To determine whether the IGA is finished, we use a set number of generations at the beginning, and each generation is a new algorithmic iteration in which we locate the population's new most similar members. The chromosome of the last population seems to have the biggest number of similarity to the solution, which is an entrepreneurship-related content (chromosome). The IGA is a powerful optimization approach that is inspired by natural events. To find the best chromosomes, a IGA simulates evolution. The IGA, unlike other optimization approaches, never uses a partial derivative to identify a local minimum. Randomness is vital in IGA because it allows them to continue searching the chromosome space for the best chromosomes. The flow chart of the IGA in figure 3 is shown below.

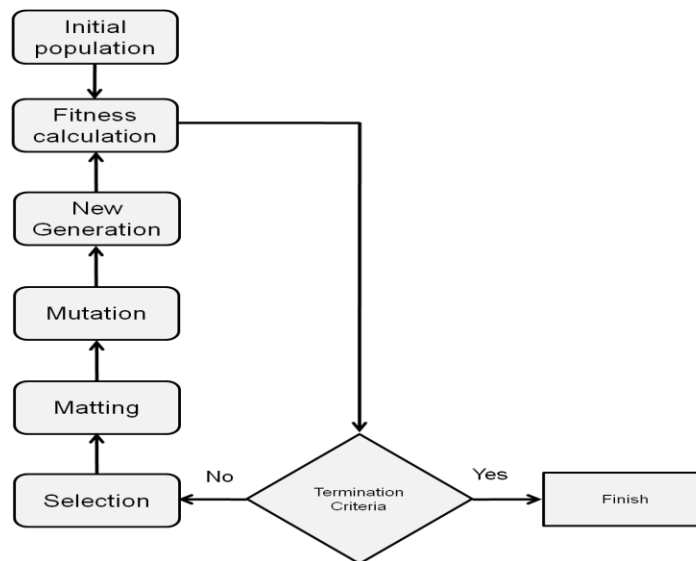


Figure 3: Flow Chart of Improved Genetic Algorithm

Initially, a population of randomly generated chromosomes is created via the genetic algorithm. The fitness values of these randomly produced chromosomes are examined. A fitness value, on the other hand, is a numerical value. If an initial population fails to meet the termination requirements, the best chromosomes with the highest fitness scores are chosen. Algorithm 1 indicates here of Improved Genetic Algorithm.

Algorithm 1: Improved Genetic Algorithm

(Genetic algorithm based feature selection and classification)

$t = 0$

Initialize population (Feature vector) $f_i = (m_1, i, m_2, i, \dots m_n, i)$

Parent selection


```
Evaluate solution
Find fitness of the population
Check for the optimal solution
if Termination criteria are reached
Then
STOP and EXIT
else
Select an individual  $m_{t+1}, i$  form  $f_t$ 
Create offspring's by crossover cross  $m_{t+1}, i$  with  $m_{t+1}, i + 1$ 
Mutate some individual mutate  $m_{t+1}, i$ 
 $t + 1$ ;
Compute new generation
Survivor selection
repeat steps
find and return the best
end if
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Using a selected pair, the matting process creates two additional chromosomes, which replace the non-selected chromosomes from the preceding generation. The number of chromosomes in each generation must be the same. This set of instructions is maintained running indefinitely until the termination criteria are not met.

Dynamic Fuzzy Colony Optimization (DFCO) Algorithm

Enhancing the transmission of knowledge and adapting to student needs, the DFCO technique is used to provide students with an opportunity to adjust their learning requirements and constantly grow their knowledge base. The suggested system is able to recognize and learn about the needs and features of students' learning through the use of membership functions and fuzzy rules derived from the input and output data of students. In this way, the system is able to tailor the online class to the requirements of the pupils. For this study, students' knowledge needs were assessed using their profile factors in the online learning and then inspected and evaluated using fuzzy logic membership functions that were built for the inputs and outputs of information. Additionally, the students' learned behaviours would be considered and the result will be based on the present condition of inputs, as well as what they have learnt. As a result, the DFCO will make improvements to the online learning that take into account the students' newly acquired behaviours and will make it easier for students to adapt and improve rules online. This allows for long-term learning because of the shifting preferences of students in terms of performance and delivery. As a first step, our system collects and stores information about students by analyzing their characteristics in an online learning environment and their information delivery requirements for entrepreneurship content. Additionally, the system will keep track of any changes in a student's specific knowledge delivery requirements or characteristics (both current inputs and outputs). It is from this data that a unique design of the learners' advance directive characteristics and needs is constructed and trained. Rules are then developed to explain how input factors affect output knowledge delivery parameters. The specified fuzzy rules are used to construct a design of the inputs and outputs without the need for a mathematical model. Adaptive processes then present the relevant material for the student based on the shifting needs of the student over time.

Delphi method

Delphi method is useful for generating, synthesizing, and analyzing opinions of students. The Delphi technique is a useful methodological technique for examining the effect of using IGA+DFCO learning platform in entrepreneurship education for business administration major. Even though the Delphi approach has been proved to have several advantages in the business world, including for the organization as a whole and for forecasting, its absence in business ethics is puzzling. Since the Delphi method is a primary research for ethical decision-making, this work attempts to demonstrate the relevancy of the technique and identify the behavior of academics in business ethics to evaluate the value this approach provides. Consequently, In order to conduct the study, we'll look at previous Delphi surveys in the area of corporate ethics in students. To support ethical decision-making models, the Delphi method may be used for two separate purposes. First, in the area of practical ethics, where the consistency of the reasoning and arguments used to support ethical decision-making models might make it a useful tool. As a result, different Delphi techniques may be used to resolve basic ethical disagreements, in which the purpose is not to obtain a quick consensus but to indicate the bounds of disagreement, in order to ease the reasoning of an ethical dilemma. Goals Delphi, the Ethical Goal Delphi component that incorporates a considerable fuzzy logic, may be divided into two distinct categories.

RESULTS AND DISCUSSION

This section is focused on analyzing the effect of entrepreneurship training through IGA+DFCO learning interface on business administration students. Control group is provided with entrepreneurship training through traditional lecture based learning mode. The statistical findings revealed that the study group performed better in terms of Entrepreneurial self-efficacy, Entrepreneurial intention, Management skills, Higher order Thinking Skills, Problem-Solving Skills, Decision making skills, Learning satisfaction, Participation in entrepreneurial projects, Learning motivation, Communication skills, and Innovative ability than the control group as the mean score of the study group in each term was higher than that of the control group. This result is evident from table 1. The entrepreneurship training through IGA+DFCO learning interface has a significant effect on imparting different entrepreneurial skills compared to lecture based learning. Passive lectures and traditional chalk-and-blackboard teaching methods are inefficient in entrepreneurship education.

Table 1: Statistical Analysis of effect of entrepreneurship training on business administration students

Dependent variable	IGA+DFCO educational platform (Study group)		Traditional teaching (Control group)		p-value
	Mean	Standard deviation	Mean	Standard deviation	
Entrepreneurial self-efficacy	4.6	0.53	3.21	0.67	0.04
Entrepreneurial intention	4.45	0.86	2.54	0.66	0.04
Management skills	4.65	0.73	3.23	0.65	0.035
Higher order Thinking Skills	4.32	0.67	1.36	0.87	0.046

Problem-Solving Skills	4.2	0.76	2.3	0.76	0.023
Decision making skills	4.72	0.56	1.65	0.54	0.032
Learning satisfaction	4.7	0.34	1.43	2.76	0.032
Participation in entrepreneurial projects	4.52	0.87	2.36	0.76	0.025
Learning motivation	4.46	0.54	2.12	0.65	0.033
Communication skills	4.3	0.75	1.9	0.55	0.021
Innovative ability	4.7	0.65	1.13	0.76	0.015

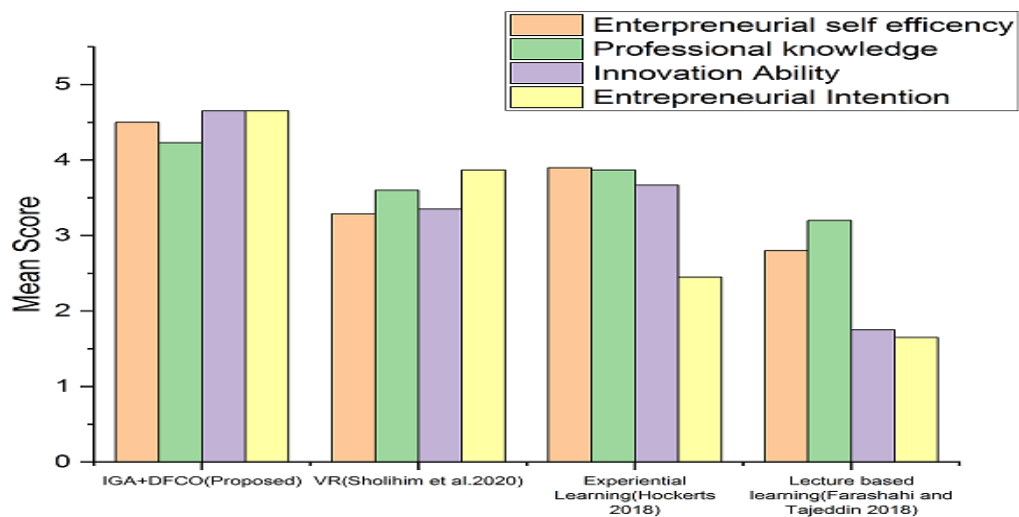


Figure 4: Comparison of different learning methods based on entrepreneurial skills

Figure 4 depicts the mean score of entrepreneurial self-efficacy, professional knowledge, innovative ability, entrepreneurial intention of students adopting different learning techniques in entrepreneurship education. The students learning entrepreneurship using IGA+DFCO educational platform exhibited higher mean score for each of these factors compared to students learning entrepreneurship through lecture based learning, virtual reality (VR), and experiential learning. As a consequence, studying entrepreneurship through the IGA+DFCO platform strongly stimulates students to start a firm after graduation (entrepreneurial intention) and increases entrepreneurial self-efficacy, which is an individual's confidence in their capacity to do different entrepreneurial activities. Also the AI based learning platform enhances the innovation ability of students and profession knowledge on business administration and entrepreneurship.

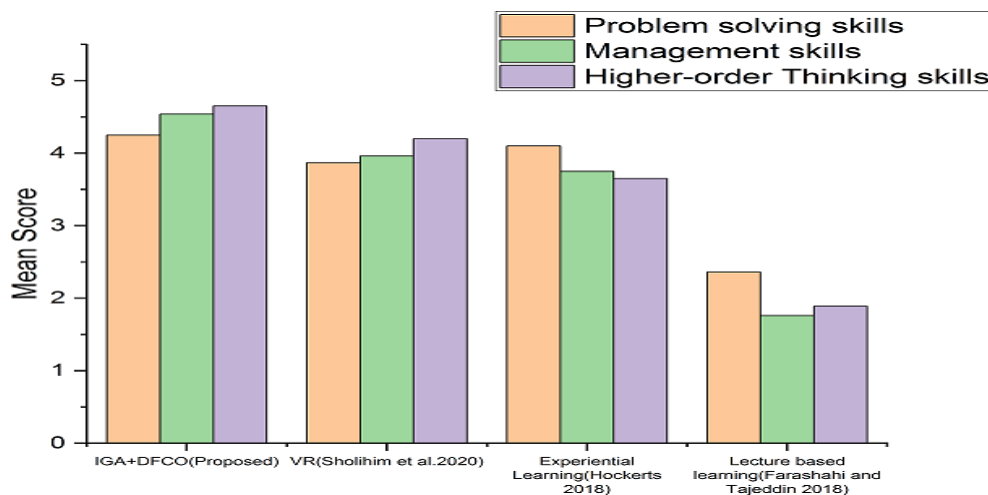


Figure 5: Comparison of different learning methods based on other entrepreneurial skills

Figure 5 depicts the mean score of problem solving, management, and higher-order thinking skills of students adopting different learning techniques in entrepreneurship education. The students learning entrepreneurship using IGA+DFCO educational platform exhibited higher mean score for each of these factors compared to students learning entrepreneurship through lecture based learning, virtual reality (VR), and experiential learning. An AI-based virtual classroom dramatically enhances our ability to comprehend information, retain facts, and problem solve to a variety of scenarios.

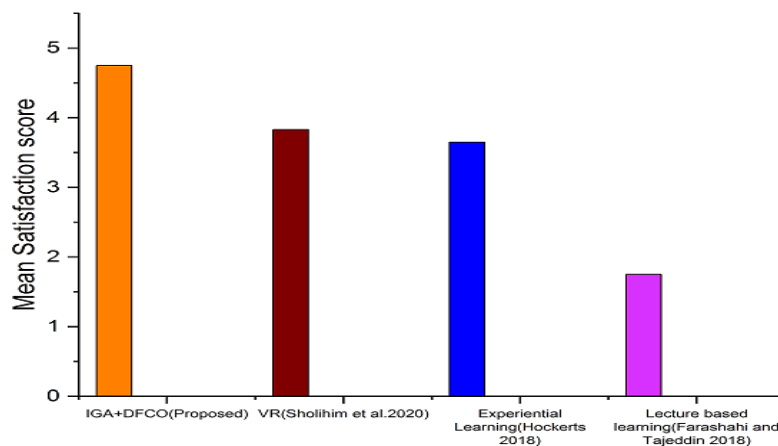


Figure 6: Student satisfaction level for different learning approaches

Figure 6 illustrates the satisfaction level of students adopting different learning approaches. The students participated in entrepreneurship education through the IGA+DFCO learning platform are highly satisfied compared to traditional lecture based learning, VR, and experiential learning. Students can easily understand the concept when using IGA+DFCO learning platform compared to traditional learning techniques.

Discussion

Students' personalized growth is critical to their capacity to think creatively. Individualistic qualities will be in high demand in the future. Students are the primary focus of instruction, thus instructors must enhance the conventional indoctrination teaching model by placing an emphasis on developing students' talents and strengths as a means of meeting training goals. Individual student development demands, cultivating students' creative spirit, and overcoming the "product convergence" drawbacks generated by the old "mass production" approach of talent training must all be taken into consideration while teaching business administration. Universities should maintain in contact with relevant industrial and commercial management businesses, pay special attention to industry developments, adjust the ratio between professional theories and practical courses, and implement practical curriculum systems and instructions. IGA+DFCO platform is a user-friendly interface that aids in the comprehension of tough entrepreneurial information and decision-making in uncertain scenarios. In terms of research samples, this study only judges the evaluation of entrepreneurship education from the one-sided perspective of student entrepreneurs because the limitations of the research objects prevent it from collecting relevant data on entrepreneurial education managers. This is because the study only evaluates entrepreneurship education from the perspective of student entrepreneurs. Second, considering that different perceptions at different times have different influences on human behavior and choice, future research might consider dynamic tracking from the perspective of organisational managers. Research techniques are also biased toward static analysis and are characterised by a lack of dynamic tracking. In addition, the influence that perceived education in entrepreneurship has on creativity is both diverse and multidimensional in nature. In the future, studies will be able to expand the dimensions of study variables in the field of entrepreneurship education, thereby enriching and developing the research models and findings along the way. Only the elements that function as mediators between entrepreneurial education and innovation are taken into consideration in this research. As a result, the study framework for future studies must take into consideration the possibility of including intermediaries and regulatory variables.

CONCLUSION

Entrepreneurship education provides students with a unique perspective on the world, whether or not they choose to start their own firm. The main focus of this research is to develop AI based educational platform using IGA+DFCO technique for providing entrepreneurship education to business administration majors. Higher standards are demanded of AI-based educational platforms compared to conventional professional training. Self-efficacy, social entrepreneurial intents, and inventive talents are all boosted when students use AI-based learning tools in entrepreneurship classes compared to traditional learning methods. The purpose of nurturing creative and entrepreneurial abilities is to promote inventive talents and traits that will assist future social and economic change and growth, rather than to force everyone to become an inventor or an entrepreneur. The reform of business administration teaching must always take into account the current social development condition, establish clear reform objectives, and at the same time, continually modify teaching concepts and enhance business administration teaching methods. Developing applied abilities is the only way to address the growing need for business administration experts in society and to advance the harmonious development of society. Our AI-based learning platform's entrepreneurship education encourages students to create their own businesses in the future.

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