### Journey Towards Entrepreneurship Education-A Qualitative & Quantitative Perspective

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Area of the Paper: Management and Commerce. Type of the Paper: Exploratory Research. Type of Review: Peer Reviewed as per <u>[C|0|P|E]</u> guidance. Indexed In: OpenAIRE. DOI: <u>https://doi.org/10.5281/zenodo.8239774</u> Google Scholar Citation: <u>IJCSBE</u>

#### How to Cite this Paper:

Lonappan, J., & Aithal, P. S., (2023). Journey Towards Entrepreneurship Education-A Qualitative & Quantitative Perspective. *International Journal of Case Studies in Business, IT, and Education (IJCSBE), 7*(3), 205-225. DOI: <u>https://doi.org/10.5281/zenodo.8239774</u>

**International Journal of Case Studies in Business, IT and Education (IJCSBE)** A Refereed International Journal of Srinivas University, India.

Crossref DOI: https://doi.org/10.47992/IJCSBE.2581.6942.0297

Paper Submission: 28/04/2023 Paper Publication: 13/08/2023

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#### ABSTRACT

**Purpose:** With the existing pedagogies in Educational System, it is a major challenge to incorporate Entrepreneurial Innovation in Entrepreneurship Education. Students as future Entrepreneurs should know how to grab positions leading to Entrepreneurial opportunities. The basic outcome of this study is to identify scenarios in Entrepreneurial Training by using innovative teaching pedagogies where active learning concepts are to be integrated into Entrepreneurship Education.

Methodology: Conducting Empirical Studies with 250 MBA Post Graduate students and systematic qualitative studies.

**Findings**: In Entrepreneurial Training, more emphasis has to be given to incorporating practical based applications into the academic curriculum. Group-based activities; Group Projects and Practical application-based Case Studies have to be given the utmost importance. Originality/Value: Relevance of Group Projects, identified as a major emerging Pedagogical Innovation in Entrepreneurial Education.

Paper Type: Exploratory Research

**Keywords**: Entrepreneurship education, Core Competencies in education, Innovative Pedagogies, ABCD Analysis from stakeholder point of view

#### **1. INTRODUCTION :**

The development of Entrepreneurial Training in Management Education is the need of the hour in our society. There is a general question that "*Entrepreneurs are born or Entrepreneurs are made*". Some believe that Entrepreneurs are born. Others believe that Entrepreneurs can be made by inculcating Entrepreneurial skills in Management Education. The majority of the Universities are of the belief that Entrepreneurship can be developed by Training; since the growth level of Educated Entrepreneurs is higher compared to other Entrepreneurs. Entrepreneurship Education has to be imparted in a manner that first of all training has to be given followed by the formation of Incubation Centre's and Research Centre's in association with leading Entrepreneurs and all these areas has to be combined.

Nowadays in Management Institutes and Universities generally use practical Case Studies as well as Industry based Workshops. Generally, Management Institutes and Universities use Inductive Learning & Deductive Learning. All Entrepreneurs have their own troubles. No one can be free from Trouble. But how entrepreneurs deal with troubles is what makes them different from others. So instead of nursing these troubles be bold against the troubles. When entrepreneurs are faced with troubles act with intelligence. Soon they can see troubles placed at their feet. In the present scenario, there is a lot of relevance for Entrepreneurial Education in Post Graduate Level teaching.

A risk-tag is attached to each & every task for Entrepreneurs. A farmer takes a risk when he sows the seed. A businessman takes a risk when he invests his money. Hence when afraid to take a trouble never hesitate to take up a commitment. Entrepreneurs should Look upon troubles as carriers of success. Only then they will love to take risks. If Entrepreneurs take risks & troubles in starting their own businesses, they will have the opportunity to give employment opportunities to others. The corrections of the decisions, the firmness of determination, and the preciseness of action will make you unique to be a



successful Entrepreneur. A committed Entrepreneur can never fail. He is bound to grow the tallest of all. With the Clouds of Commitment, entrepreneurs cannot miss the showers of many a rare achievement. With the brushes of Commitment, entrepreneurs cannot miss the beauties of many a rare achievement. An entrepreneur with an impatient mind can never find a triumphant future. A hasty mind can never have but a nasty future. A doubtful mind can never experience a peaceful future. A wavering mind can never bring you a glittering future. So as an entrepreneur build up Confidence in times of trouble & Challenges.

The flames of hope for an entrepreneur must be like the fumes of Sun-ever burning. The comforts you give up and the hardships you undergo to free others from agony and misery are bound to keep you cheerful and peaceful as an entrepreneur. Entrepreneurship is a journey across breezes & hurricanes, comforts & threats, Felicitations & humiliations, excitements & disappointments. So, including pedagogies related to facing Troubles & Challenges with Confidence to be a Successful Entrepreneur is mandatory in the present academic Management Level Curricula.

Entrepreneurship Education is having a lot of significance in the present scenario (Solomon et al. 2007) [1] and is considered to be an emerging field globally. Same like Engineering & Medical Education, Entrepreneurship Education is gaining lot of weightages (Fayolle et al. 2013) [2]. The art of selling skills, people management, and developing innovative products contribute to the design of effective teaching pedagogy (DeTienne, D. et al. (2004)) [3]. It also takes into consideration the best practices to be included for developing curriculum (Dabbagh, et al. (2006). [4]).

#### **Inductive Learning:**

Inductive Learning is used to explain how a Management Concept is used. Students have to find out in which this concept will work. This method is used mainly in Leadership Training Centers as well as in Clinical Leadership Training Centers, especially in Hospitals and other institutes.

#### **Deductive Learning:**

In Deductive Learning, the teacher introduces the concept and will wait for the students to complete their assignments. Once the students are done with their assignments; teachers will tell to complete their assignments by using the concepts.

In Western Countries Universities have tied up with corporates and Entrepreneurs; so that while students pursue their Management Education, they can give Entrepreneurial Training or can include subject content related to Entrepreneurial Training. So that while doing a management program the students will get practical know-how related to Entrepreneurial skills. Hence the scope of inculcating Entrepreneurial Education and Training by the Management Institutes is the need of the hour.

#### Teaching Methods to Incorporate Entrepreneurial Skills in Students:

- a) Class Sessions and Guest Lectures
- b) Self-based learning based on assignments
- c) Presentations based on Practical Assignments
- d) Group Discussions, 3 C Reports (Company, Competitors & Customers)
- e) Presentations related to Dream Company
- f) Projects related to Industry-Academia Collaboration
- g) Practical Case-Analysis, Team-based assignments
- h) Motivating students to come up with Business Plans

#### **Innovative Teaching Methods in Entrepreneurial Teaching:**

#### (1) Flipped Classroom:

Trainees will be discussing with each other the topics that will be dealt in class before the class starts. So, the trainer while taking the session can take the advanced version of the topic.

#### (2) Personalized Learning:

In this type of Learning first trainees' strengths, interests, needs, skills and interests will be analyzed. Based on this analysis trainers will craft customized learning for each trainees needs.

#### (3) Jigsaws:

In this type of Learning the trainees will be divided into groups and each groups practical assignments will be given and the trainer will be synthesizing all the assignments and a collective analysis will be taken.

#### (4) Inquiry based Learning:



This type of Learning enables students to ask questions. It is also considered to be Student Centered Learning Approach. It's a type of Question based Learning and more focus will be given for analyzing problems faced in the Real-World.

#### (5) Peer Learning:

This type of Learning Takes place between the students. Here a student expert in the relevant subject area instructs the other student. Again, it's a type of Student focused Learning.

#### (6) Blended Learning:

It's a mix of both Physical & Online based Learning. It combines all the Online Platforms used in teaching with the Physical Platforms. This type of Learning enables the students to have access to information's stored by means of Google Classroom Platform as well as enable students to do groupbased assignments by making use of all the platforms in E-Learning. This type of Learning also enables the students to have easy access to information's previously stored in the Google Classroom Databases. (7) Active Learning:

This type of Learning mainly happens by involving students in Group Discussion, Solving Cases and group-based assignments. In this type of learning the students can raise their opinions and also can discuss on areas based on their interest in relevance to the topics assigned and can have an active discussion based on the topics of interest.

#### (8) Experiential Learning:

This is a type of Learning which gives more importance to Experience. Hands on Training can be a good example for Experiential Learning. In Experiential Learning students are engaged in the Training process. In this type of Training, it gives much emphasis to the philosophy Learning happens through Experience.

#### (9) Establishing Constructive Small Group Teaching Sessions:

Is a method used apart from the traditional teaching modes. In this type of Training the students are divided constructively into different small groups. For each groups separate topics will be given and the information's collected from all the small groups will be synthesized together.

#### (10) Gamification:

This type of Learning allows the students to use video type of game designs to teach techniques or concepts. The main objective is to maximize student involvement and participation. This type of learning also maximizes the enjoyment quotient in Learning there by enabling student engagement in the Learning Process.

#### (11) **Experiential Learning**:

Experiential Learning has been proven to have a positive effect on Critical Thinking. Through Experiential Learning, students can use what they have learned and apply it into real world situations, making them better equipped to think critically. Experiential Learning can be invaluable when it comes to making decisions. Students who participate in Experiential Learning activities are more likely to open to new ideas and to think critically about the world around them.

#### (12) Learning management systems:

LMS are apps that enable instructors to create, deliver, and grade online courses. They provide teachers with a platform to easily deliver content and assess student performance. LMS are also useful for students as they can access study materials and submit assignments anywhere, anytime. LMS offers a variety of tools to facilitate student-faculty collaboration, such as: B. Meeting forums and chat rooms. The LMS achieved higher grades, greater effort, and better academic results than students who did not use it. Organize constructive small group lessons in business schools

#### 13. Buzz Group:

In this type of learning lecture will be given followed by a Question & Answer session which is immediately followed by dividing students into small groups comprising of 3 to 4 students for discussing about the topics dealt.

#### 14. Cross-over Group:

This type of learning compares student understandings of classroom-based learning and the motivational & confidence levels to work in teams giving much focus to team-based tasks.

#### 15. Horseshoe Groups:

In this type of Learning the students will be asked to be seated in semi-circles mainly to conduct group discussions or live demonstrations. In this type of learning in small groups the student's attention will be more since equal attention will be given to each and every student in the group.



#### 16. Project-Based Learning:

Through active participation in relevant and meaningful projects, students acquire new information and develop new skills through project-based learning. As a result, students acquire in-depth specialist knowledge as well as critical thinking, teamwork, creativity, and communication skills.

#### 17. Online communities:

With the advent of second-generation online communities, social networking sites increased in popularity due to increased collaboration and user sharing through interactive applications.

#### 18. Social media platforms:

Facebook, YouTube, WhatsApp, Instagram

#### 19. Online learning platforms:

Udemy, Khan Academy, edX, Course era, NPTEL Swayam

These data were collected through the Comprehensive Literature review of the papers published in the Indexed Journals searched through Google Scholar.

#### 2. OBJECTIVES :

The paper is Exploratory in nature and follows a research review-based hypotheses and proves the hypotheses using Quantitative analysis to identify the best Pedagogies in Entrepreneurship Education. The objectives include:

(1) To identify the Innovative Pedagogies in Entrepreneurship Education.

(2) To develop the Qualitative Method through review of Literatures from scholarly Journals.

(3) To determine the alignment of Innovative Pedagogies in Entrepreneurship Education using Quantitative method by administering questionnaires for getting collective responses from the students.
(4) To analyze the pedagogies in Entrepreneurship Education using ABCD analysis framework from Stakeholders point of views.

(5) To suggest the best pedagogical mode to impart Entrepreneurship Education in Institutes.

#### **3. REVIEW OF LITERATURE :**

As per the literature review areas identified are as follows: Organizations have to focus on the competency level in specific areas that will help them to differentiate their products from the competitor's products. So institutes have to give more focus on Core Competency in the Teaching Pedagogy, Core Competency gives much emphasis to Organizational Participation, Engagement, and Communication. So, in Teaching pedagogy group activities to be included, which help them towards achieving Core Competencies in Organization, Developing Creative Products enhances Business Performance. Creative Thinking has to be given utmost importance in developing Core Competency, Competitiveness and Capabilities of the companies determine core competency, Innovative Products stimulate company's growth, Global increase in Strategic Alliances enhances Competitiveness, and more focus in academics is to be given to inter-organizational Trust. This focus will enhance core Competency.

Improving the relations between Stakeholders and customers enhances core competency, Value Creation enhances Core Competency. Value creation can be given utmost importance in institutions by conducting Group-based activities, Providing Customer satisfaction. The more the customers are satisfied the more Competency will be generated.

S. No.	Area/ Focus	<b>Objectives &amp; Outcome</b>	Reference
1	Organizations have to focus the	To develop competitive	Wheelen et al. (2018)
	competency level in specific	strategies that will give a	[5]
	area that will help them to	unique edge over the	
	differentiate their products	competitors	
	from the competitor's products.		
	So institutes have to give more		
	focus towards Core		
	Competency in the Teaching		
	Pedagogy		

#### Table 1: Review of literature for the keyword "Core Competency"



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(	$E_{1}^{0}, 1001^{0}, 2001^{-0}, 42^{0}, 101^{-1}, 101^{-1}$		PUBLICATION
2	Core Competency gives much emphasis to Organizational Participation, Engagement and Communication. So in Teaching pedagogy group activities to be included, which help them towards achieving Core Competencies in Organization.	Participation, Engagement & Commitment	Bani-Hani et al. (2021). [6]
3	Developing Creative Products enhances Business Performance. Creative Thinking has to be given utmost importance in developing Core Competency	Creative Thinking enhances Core Competency	Yang et al. (2015). [7]
4	Competitiveness and Capabilities of the companies determine core competency	Competitiveness enhances core competency	Wernerfelt et al. (1984). [8]
5	Innovative Products stimulate company's growth	Innovativeness component enhances core competency level	García et al. (2012). [9]
6	Global increase in Strategic Alliances enhances Competitiveness.	Strategic Alliances enhances core competency. So in Entrepreneurship Education much focus also to be given towards Alliances	Bleeke et al. (1991). [10]
7	More focus in academics to be given to inter-organizational Trust. This focus will enhance core Competency.	Inter-Organizational Trust enhances Core Competency	Gulati et al. (2008). [11]
8	Improving the relations between Stakeholders and customers to enhance core competency	Improving relations enhances competency	Madueno et al. (2016). [12]
9	Value Creation enhances Core Competency. Value creation can be given utmost importance in institutions by conducting Group-based activities	Value Creation enhances Core Competency	Ljungquist et al. (2008). [13]
10	Providing Customer satisfaction. More the customers are satisfied the more Competency will be generated	Customer Satisfaction enhances Core Competency	Duan et al. (2019). [14]
11	Gaining competitive edge by Facilitating Entrepreneurship Education and encouraging Innovations while facing challenges related to the Economic Growth.	Gaining Competitive Edge	Wu et al. (2017). [15]
12	Focusing on Competency based approach	Competency	Ernst et al. (2004). [16]



Including Core Competency in Entrepreneurship Education helps to develop Core Competencies that will give a unique edge over the competitors. Core Competency enables Participation, Engagement & Commitment. Customer Satisfaction, Value Creation, Improving Relations between the various organizational stakeholders also enhances Core Competency Level.

S. No.	Area/ Focus	<b>Objectives &amp; Outcome</b>	Reference
1	Goals achieved by imparting innovative teaching pedagogies	Increased Student involvement	Sharples et al. (2016). [17]
2	Areas of improvement done by imparting innovative teaching pedagogies	Analyzed various areas like ice-breakers, Group Projects	Sharples et al. (2019). [18]
3	Areas of Learning done by imparting innovative teaching pedagogies	More Learning happens through Group related Projects	Ferguson et al. (2017). [19]
4	Teach back method	Introduction of Student- Teacher mode to be introduced in Management Institutes	John et al. (2017). [20]
5	Place based Learning	College to Corporate program have to be given much emphasis	Batty et al., 2019. [21]
6	Formative Analytics	Helps to analyze the learning process by analyzing the behavior of students.	Herodotou et.al., (2017). [22]
7	Introducing a framework of developing innovative teaching pedagogies	Integration of various pedagogies like Case Study Analysis, Group based projects to be given much emphasis in Management Institutes	Puttick et al. (2012). [23]
8	Formative analytics in Computer-based assessment	Providing Analytic Dash- boards directly to students	Bodily et al. (2018). [24]
9	Networking Technologies enabled Pedagogies	Integrating technologies like Google Classroom, Whats app, Learning notes through Enterprise Resource Planning Management System have a Synergy effect in Learning	Siemens et al. (2005). [25]
10	Learning through Experiential Approaches	Higher understanding of concepts, Higher Involvement and Higher Engagement of students in the Learning Process	Linnemanstons et al. (2017). [26]
11	Finding new patterns which gives much emphasis towards finding opportunities, analyzing new trends and facilitating Technology enabled future options.	Technology enabled future options	Semken, S. et al. (2008). [27]
12	Commercial applications in business enhancing socio- economic development	Commercial Applications	Herodotou et al. (2017). [28]

#### **Table 2:** Review of literature for the keyword "Innovative Pedagogy"

Innovative Teaching Pedagogy in Entrepreneurial Education enhances Increased Student Involvement, helps to include various innovative areas like Ice-Breakers, Group Projects etc. More Learning happens



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through Group related Projects. Even the introduction of Student-Teacher mode to be introduced in Management Institutes. College to Corporate program needs to be given much emphasis. Providing Analytical Dashboards directly to students helps to analyze the Learning Process by analyzing the behavior of students. Integration of various pedagogies like Case Study Analysis, Group based projects to be given much emphasis in Management Institutes. Integration of Technologies have a synergy effect in Learning. Experiential Approaches enhances higher understanding of Concept, Higher Involvement and higher engagement of students in the Learning Process.

S. No.	Area/ Focus	<b>Objectives &amp; Outcome</b>	Reference
1	Problem solving approach based on a practical perspective	Analysis to tackle the problems in the institution level by giving case studies	Aristeidou et al. (2017). [29]
2	Theory Vs. Practical approach	Bridging the gap between theoretical based approach and practical based approach-A systematic Analysis	Anderson et al. (2012). [30]
3	Analysis on modes of Group Discussion	Facilitating Group Discussions- Empirical Analysis	Azevodo, R. et al. [31]
4	Problems Vs. Solution	Systematic Analysis pertinent to the Practical Based Problems & Solutions faced by the Organization	Ballard, H. L. et al. (2017). [32]
5	Inter/Intra group participation	Encourage Inter/Intra group participation among students in joint partnerships with Organizations/ Company's-A Systematic Perspective	Benitti et.al. (2012). [33]
6	Student Participation in the Decision making Process	Analysis to Facilitate student participation in decision making pertinent to solving the problems faced by Organizations/ Company's.	Benitti et al. (2012). [33]
7	College to Corporate Interface	Facilitating College to Corporate interface- A Systematic Perspective	Boakes, E. H. et al. (2016) [34]
8	Improving Inter-Personnel Communication Skills	An Analytical Perspective on Enhancing confidence level among the students and also helping them to improve the Inter- personnel/ Communication skills.	Bodily et al. (2018). [35]
9	Video- lecture based Training	Systematic Review on Encouraging students to learn from Video Lecture based Training from Professionals in the relevant field	Bodily et al. (2018). [35]
10	Web-based Learning	Encouraging students for the web- based learning-A review on Communication skills	Bani et al. (2021) [36]

#### Table 3: Review of literature for the keyword "Systematic Analysis"



11	Entrepreneurial	Traits of	Entrepreneurial Traits	Bani et al. (2021) [36]
	Management	Post	_	
	Graduates			

Systematic review of Literature is done on the areas like Problem-Solving approach, Theory Vs. Practical Approach, Group Discussion modes, Problem Vs. Solution, Inter-Intra group participation, Student participation in the decision-making process, College to Corporate interface, Improving Interpersonnel communication skills, Video-Lecture based Training and Web-Based Learning.

#### 4. METHODOLOGY :

Qualitative Analysis is done through a Review of Literature from Indexed Journals. Quantitative Analysis is done through Questionnaires by collecting responses directly from the respondents.



Fig 1: Comprehensive Literature Review Chart

A comprehensive Literature review was done from November 2022 to February 2023 from indexed journals. Articles searched were indexed in the Google Scholar search engine, Scopus Database & Social Science Research. The following key terminologies were used in searching the titles Innovative Pedagogy, Entrepreneurship Education, and entrepreneurial Learning. Criteria for Inclusion included all articles written in English and studies that provide specific information's on Innovative pedagogy in Entrepreneurial Education. 17 articles were selected relevant to the Topic.

#### 4.1 Quantitative Analysis:

Is done by framing questionnaires and circulating among the 250 respondents. Respondents are the M.B.A post graduate students. The various questions framed comprise of open-ended questions, closedended questions and Likert rating scale mainly to collect responses from the respondents. Before circulating the questionnaires, the students were given Training related to Entrepreneurship Program. Also, the insights related to Entrepreneurial Innovation and Entrepreneurial opportunities were given. Before administering the questionnaires, the interest quotient among the students related to coming up with Start-ups were also analyzed. Question & Answer session is also conducted related to student awareness which gives much emphasis to Entrepreneurial Innovation. The students were also asked to explain about the Entrepreneurial opportunities that they are aware of. Information's related to Group Discussion, Team-based Learning, College to Corporate programs, Industry interface were collected from Post Graduate students. Students were also asked to fill the details related to Industry-Academia Interface. In the Questionnaires they were also asked to fill the details related to Group Discussion, Case Study, Activity based project-applications included in the curriculum.

Corporate requirements is also given utmost importance while framing the questionnaire. Questionnaires were framed taking into consideration all the stakeholders' requirements. The Stakeholders comprises of Students, Teachers, Head of the Educational Institutions (HEI), Industry



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delegates. Questionnaires are framed based on the back ground information from the literature review (Qualitative Analysis) which is mentioned in the Conceptual Model Representation of Entrepreneurial Teaching Pedagogies & Evaluation of Innovative Pedagogical Innovations based on the past studies conducted related to these areas. As per the Literature Review Innovative Pedagogical Innovation areas identified are as follows:

Case Study Analysis, Activities based Group Discussion, Presentation based on the Projects, Project Reports, Group activity-based Projects, Formal series of Classroom sessions, Guest Lectures from Resource Speakers from Industry, Action based Learning, Group Presentations based on the Company Report, Electronic Enabled Learning, Lecture Series based on the Audios and Videos Recorded.

As per the Literature Review Industry-Institute Collaboration, Industry-University Collaboration, Industry-Government-University Collaboration has to be given much emphasis. Even the Institutes should have Memorandum of Understandings between Academia, Industrial Firms & Organizations. Even in the Literature review much emphasis is also given in these following areas a. Student Internship Programs in Industry b. Funded Student Research Projects with Industry c. Funded Student Research Projects with Government.



Fig: 2 Conceptual Model Representation of Entrepreneurial Teaching Pedagogies & Evaluation of Innovative Pedagogical Innovations

Questionnaires are framed based on the background information from the literature review (Qualitative Analysis) which is mentioned in the Conceptual Model Representation of Entrepreneurial Teaching

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Pedagogies & Evaluation of Innovative Pedagogical Innovations based on the past studies conducted related to these areas.

#### **5. SYSTEMATIC ANALYSIS :**

Due to lack of formal Curricula for training, there is need for Entrepreneurial Education that will focus on Methodologies that will help in developing skills needed for an entrepreneur. <sup>9</sup>Entrepreneurial Teaching module as a part of Curriculum that include can be considered. Research into the assessment methods pertinent to Pedagogical Innovations in Entrepreneurship Education is still in its initial phases and has to be given much emphasis. Meta-innovations contribute especially to the development, or students interpersonal and networking competencies (Fig. 3).



Fig. 3: Meta Innovation Chart to meet the competencies of Pedagogical Methods

Meta-Innovations lead to better student-teacher interface which enhances the Quality of Education creating a favorable environment enhancing Societal Culture. For achieving meta-innovation following areas has to be given utmost importance i.e., alignment of innovative teaching pedagogies along with areas of innovation in entrepreneurial training taking into account student-specific competencies, and innovation competencies.

### 6. ALIGNMENT OF INNOVATIVE PEDAGOGIES IN ENTREPRENEURSHIP EDUCATION:

#### **Design of Teaching Pedagogy:**

As per the Literature Review following areas of Teaching Pedagogy were identified with specific reference to Entrepreneurial Education: Entrepreneurial Opportunities, Case Study, Group Discussion, Individual Presentation, Individual Written Report, Group Project, Formal Lectures, Guest Lectures, Action Learning, Seminars, Web-based Learning, and Video Recorded Lecture.

Teaching Pedagogy	Intended Learning Outcomes	Citations
Entrepreneurial	Bridging the gap between Practical based	Aronsson et.al. (2004). [37]
Opportunities	Entrepreneurial approaches and Research	
	based approaches	

**Table 4:** Design of Teaching Pedagogy: Enacted Curriculum



Case Study	To find practical ways to tackle the problems faced by the organization/ company helping to find new entrepreneurial opportunities	Bennett, R. et al. (2006). [39]
Group Discussion	Facilitate inter/intra group discussions among students pertinent to solve the problems faced by the organization/company.	Bridge, S. et al. (2010). [40]
Individual Presentation	Encourage the students to come up with practical solutions and present those solutions in front of the organization/company officials.	Chang, J. et al. (2013). [41]
Individual Written Report	Encourage the students to come up with practical solutions and write report pertinent to those solutions in front of the organization/company officials.	Cope, J. et al. (2005). [43]
Group Project	Encourage Inter/Intra group participation among students in joint partnerships with Organizations/ Company's.	Cope, J. et al. (2000). [44]
Formal Lectures	Facilitate student participation in decision making pertinent to solving the problems faced by Organizations/ Company's.	Corbett, A. et al. (2005). [45]
Guest Speakers	Facilitating College to Corporate interface	Franco, M., et al. (2013). [46]
Action Learning	Real life Learning	Webber, G. et al. (2016). [47]
Seminar	Enhancing confidence level among the students and also helping them to improve the Inter-personnel/ Communication skills.	Westlund, et al. (2015). [48]
Web-based Learning	Encouraging students to collect various information's from Google.	Winne, P. H. (2017). [49]
Video-Recorded Lectures	Encouraging students to learn from Video Lecture based Training from Professionals in the relevant field.	Wood, D., et al. (1979). [50]

Qualitative analysis indicates Innovative Teaching methods in Entrepreneurial Training which gives much emphasis to Group based activities.

As per the literature review following observations were done,

- (1) There is a requirement for Bridging the gap between Practical based Entrepreneurial approaches and Research based approaches
- (2) Requirement to find practical ways to tackle the problems faced by the organization/ company helping to find new entrepreneurial opportunities
- (3) Requirement to Facilitate inter/intra group discussions among students pertinent to solve the problems faced by the organization/company.
- (4) Requirement to Encourage the students to come up with practical solutions and present those solutions in front of the organization/company officials.
- (5) Requirement to Encourage Inter/Intra group participation among students in joint partnerships with Organizations/ Company's.
- (6) Requirement to Facilitate student participation in decision making pertinent to solving the problems faced by Organizations/ Company's.
- (7) Requirement for Facilitating College to Corporate interface
- (8) Requirement for the Real-Life Learning



- (9) Requirement for Enhancing confidence level among the students and also helping them to improve the Inter-personnel/ Communication skills.
- (10) Requirement for Encouraging students to collect various information's from Google.

#### 7. FINDINGS RELATED TO QUANTITATIVE ANALYSIS :

The pedagogical Innovations in teaching which is mentioned above specifically mention about the Enacted Curriculum. Post Graduate Student Responses based on Survey conducted on imparting Entrepreneurial Education.

Based On a Study conducted by collecting Questionnaires from 250 Post Graduate students. Based on the Study majority of the respondents, i.e., Post-Graduate Management Students; give emphasis for Group-Projects, Case Study & Workshops. So, it is the need of the hour for the Post-Graduate Management Colleges to impart Entrepreneurial Education in the Management Curriculum.

As per the Quantitative analysis (Fig: 4) in designing pedagogies in Entrepreneurship Education more emphasis to be given to Group based Projects followed by Case Study Analysis & Industry based Workshops.



Fig. 4: Entrepreneurial Education Survey Chart Representation

#### 8. ABCD ANALYSIS :

ABCD analysis is a unique method for analyzing the efficiency of ideas, action plan and thought pertinent to the given situation/Factors/ Determinants. ABCD analysis is based on 4 pivotal constructs (1) Advantages, (2) Benefits, (3). Constraints, (4) Disadvantages developed by Aithal P. S. et al. (2015) [54-66]. In this section, we have listed advantages, benefits, constraints, and disadvantages of pedagogies of Entrepreneurial Education from various stakeholders' points of view.

#### 8.1 ABCD Analysis from students' point of view:

Students should have a clear focus towards venturing into new Start-ups based on their own skill sets. Lack of Knowledge related to Practical Know-How in the Industry, Lack of Knowledge related to Corporate Practices, Lack of skill-based applications in educational institutions, Lack of Problem based applications were the serious issues addressed by the students in the Educational Institutions.

S. No.	Key Issues	Advantages	Benefit	Constraints	Disadvantages
1.	Industry-based Learning	Help students to know about the Industry Standards & Requirements	Fit to be employed	Theoretical Inputs not matching Industry Standards	LackofKnowledgerrelatedtoPracticalrKnow-Howinthe Industryr

Table 5: ABCD Analysis from students point of view



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	1				
2	College to	Enable students to	Help students	Major focus	Lack of
	Corporate	know about the	to analyze the	towards	Knowledge
	Interaction	Corporate	corporate	Corporate	related to
		Requirements	practices	Interactions	Corporate
				lacking in	Practices
				Educational	
				Institutions	
3	Skill based	Enhances students	Facilitates	Skill based	Lack of Skill
	Learning	related to Skill based	Skill based	Learning	based
		Learning Practices	Learning	lacking in	applications in
				Academic	Educational
				Curricula.	Institutions
4	Case based	Facilitates students	Case based	Case	Lack of Skill
	Learning	to analyze the cases	applications	application-	based
		related to industries	equip students	based learning	applications in
		in a systematic	to have a	given less	Educational
		manner.	practical	emphasis in	Institutions
			analysis for	educational	
			the Solutions	institutions	
5	Problem based	Enable students to	Facilitate the	Major focus	Lack of
	learning	give much focus	students to	towards	Problem based
		towards problem-	solve the	Problem-	learning
		based learning	problems	based	applications in
			faced by the	Learning is	Educational
			industries	lacking in	Institutions
				Educational	
				Institutions.	

#### 8.2 ABCD Analysis from Teachers point of view:

In the management curriculum apart from the contents framed by the University Teachers should give much emphasis towards the Entrepreneurial Training. This helps the students to incorporate the practical know-how associated with Entrepreneurial Training into their innovative Start-Ups. So Teachers should give much emphasis towards the Skill-based Learning. To solve the Lack of Problem based learning applications in Educational Institutions which has to be given utmost importance by the Teachers. Teachers should come up with additional Training programs to equip the students with skill sets as per the industry requirements. Teachers should give much emphasis to Industry-based Learning Programs.

S.	Key Issues	Advantages	Benefit	Constraints	Disadvantages
No.					
1	Industry-based Learning	Help Teachers to teach students to know about the Industry Standards & Requirements	Enable Teachers to guide their students fit to be employed as per the industry requirements	Theoretical Inputs not matching Industry Standards as per the syllabus in the academic curriculum.	Lack of industry-based Learning Programs
2	College to Corporate Interaction	Industry experienced Faculty members can help students to have corporate interactions.	Industry experienced faculty members can help the students to interact with	MajorfocustowardsCorporateInteractionslackinginEducational	Lack of Knowledge related to Corporate Learning Practices

	Table 6: ABCD	Analysis	from	Teachers	point of view
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			corporate	Institutions due to	
			officials	lesser number of	
				training programs	
				given to the	
				Faculty	
				Members.	
3	Skill based	Enhances	Facilitates Skill	Lack of Teacher	Lesser number
	Learning	Teachers to	based Learning	training towards	of Training
		incorporate Skill		Skill based	Programs to
		based Learning		Learning	facilitate
		Practices			teachers to
					equip with
					skill-based
					training
4	Case based	Facilitates	Case based	Case application-	Lack of Skill
	Learning	Teachers to	applications	based learning	based
	_	analyze the cases	equip teachers to	given less	applications in
		related to	have a practical	emphasis in	Educational
		industries in a	analysis for the	educational	Institutions
		systematic	Solutions	institutions	
		manner.			
5	Problem based	Enable Teachers	Facilitate the	Major focus	Lack of
	learning	to give much	Teachers to	towards Problem-	Problem based
	-	focus towards	teach students to	based Learning is	learning
		problem-based	solve the	lacking in	applications in
		learning	problems faced	Educational	Educational
		-	by the industries	Institutions	Institutions
			-	which has to be	which has to be
				given utmost	given utmost
1				importance by the	importance by
1				Teachers.	the Teachers.

#### 8.3 ABCD Analysis from HE Institutions Point of View:

Head of Institutions should place much emphasis towards appointing Industry experienced Faculty members for the faculty positions. This helps the Head of the Educational Institutes to impart Industrybased Learning, Facilitate College to Corporate interaction, to equip the students with skill based Training requirements, enhancing Case-based Learning and enhancing Problem-based Learning.

S.	Key Issues	Advantages	Benefit	Constraints	Disadvantages
No.					
1	Industry- based Learning	Has to be given utmost importance since its having lot of weightages in the institutions going for and for the institutions already in the NAAC &JRF cycle	Facilitates institutions to get better NAAC & JRF based rating	Theoretical Inputs not matching Industry Standards as per the syllabus in the academic curriculum as given by the Universities.	Lack of industry experience among the Faculty Members
2	College to Corporate Interaction	accreditation process.Havinglotofweightagesintheinstitutionsgoingforand for the institutionssetting	Facilitates institutions to get better NAAC & JRF based rating	Majorfocustowards CorporateInteractionslackingin	Lack of Knowledge related to Corporate

#### Table 7: ABCD Analysis from HE Institution point of view



International Journal of Case Studies in Business, IT, and Education
(IJCSBE), ISSN: 2581-6942, Vol. 7, No. 3, August 2023

		already in the NAAC		Educational	Practices due to
		&JRF cycle		Institutions due to	less Industry
		accreditation process.		lesser number of	experienced
				Industry	Faculty
				experienced	members
				Faculty members	
3	Skill based	Skill based learning by	Incubation	Lacking Industry	Faculty
	Learning	the introduction of	center's	experienced staffs	members with
		Incubation center's	encourages	to start incubation	no Industry
			students for	center's	experience
			putting their own		-
			start-ups		
4	Case based	Facilitates students to	Encourages	Difficulty in	Lack of focus
	Learning	take real-world	student by	generalize the	towards the case
		examples	applying the	findings from one	study-based
		_	theoretical inputs	Case to the other	applications.
			they have learned	Case	
			and facilitates		
			Student		
			involvement &		
			Active		
			Participation		
5	Problem	Encourages students to	Facilitates	Lesser number of	Lesser
	based	solve the real problems	students to apply	tie-ups with	incorporation of
	learning	faced by the industries	the theoretical	industries	Theoretical
			knowledge to		inputs to solve
			solve the real		practical
			problems faced by		problems
			the industries.		_

#### 8.4 ABCD Analysis from Industry point of view:

Industries will be giving more Placement opportunities to institutions that give much emphasis on institutions that facilitate Industry-based Learning, College to Corporate interaction, Skill based learning, Problem-based Learning, and Case-Study based Learning.

Table 8: ABCD Analys	is from industry	point of view
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S. No.	Key Issues	Advantages	Benefit	Constraints	Disadvantages
1	Industry- based Learning	Prepare students to equip themselves with the challenges and opportunities of the Globalized world.	Equip students to face the challenges of the real-world Environment	Less interaction between Industry, Universities & Institutes	Management Training is done based on University Curricula where less emphasis is given to Industry Based Learning in each subject
2	College to Corporate Interaction	Encourages the students to adaptable to the corporate requirements	Student adaptable corporate environment	Less college to corporate interactions	In the University Curricula based teaching process emphasis given



					to College to
					to College to
					Corporate
					interaction is
					very less.
3	Skill based	Facilitate to impart	Skill specific	Less emphasis	Curricular
	Learning	skill specific	learning based	given to skill-	theoretical
		information-based	on the industry	based learning in	inputs framed
		learning	requirements	Institutes	for
					Entrepreneurial
					Training by
					Universities &
					Institutes not
					significantly
					favoring Skill
					based Learning
4	Case based	Facilitates inter-	Collaboration	Less emphasis	Case based
	Learning	intra industry case-	between	given to solve	learning
	6	based learning	Academia &	problems faced	applications not
		6	Industry to	by the industries	given emphasis
			support case-	which can only	in institutes
			based learning	be done through	
			8	Memorandum of	
				Understandings	
				between	
				Institutes &	
				Industry	
5	Problem	Facilitates	Critical skills are	PBL not given	Problem based
-	based	adaptability,	used by the	utmost	learning not
	learning	flexibility and	students in PBL	importance in	given utmost
	8	responsiveness to	for managing	Entrepreneurial	importance in
		problem-based	projects and	Training in	Institutes.
		learning	solving	Institutes.	montates.
		icuming	problems.	montates.	
			problems.		

#### 9. SUGGESTIONS :

The Institutes and Universities should be in a position to guide the students to start their own start-up business. For this purpose, Institutes & Universities should include innovative pedagogical innovations like combining theory with practical applications in business. The institutions and Universities should have a tie-up with funding agencies, Small-Scale & Large-Scale Industrial development units. The Institutes and Universities should foresee all this, and theoretical and practical insights related to these areas has to be given utmost importance in Entrepreneurial Training. Also, emphasis to be given to offer additional Certification Programs which encourage students to start their own new Start-ups and business ventures by including group-based Management activities.

#### **10. CONCLUSION :**

It's the need of the hour for Colleges & Universities to Impart Entrepreneurial Training. This can be done by incorporating Entrepreneurial Training related Modules in the Management Curriculum both at the Graduate & Post-Graduate Levels. Even in the Field of Higher Education, there is also a requirement of Entrepreneurial Training which also can be imparted by incorporating modules related to Entrepreneurial Education even in Higher Education.

#### **REFERENCES**:

[1] Anderson, T., and Shattuck, J. (2012). Design-based research: a decade of progress in education research? *Educ. Res.* 41(1), 16–25. Google Scholar ス



- [2] Fayolle, A., & Gailly, B. (2008). From craft to science. Journal of European Industrial Training, 32(1), 569–593. Google Scholar ス
- [3] DeTienne, D., & Chandler, G. (2004). Opportunity identification and its role in the entrepreneurial classroom: A pedagogical approach and empirical test. *Academy of Management Learning and Education*, *3*(1), 242-257. Google Scholar ×<sup>3</sup>
- [4] Dabbagh, N., & Menascé, D. (2006). Student perceptions of engineering entrepreneurship: An exploratory study. *Journal of Engineering Education*, 95(2), 153–164. Google Scholar ×<sup>3</sup>
- [5] Wheelen, T. L., Hunger, J. D., Hoffman, A. N., and Bamford, C. E. (2018). Strategic Management and Business Policy: Globalization, Innovation and Sustainability, 14th Edn. Upper Saddle River, NJ: Prentice Hall. Google Scholarx<sup>3</sup>
- [6] Bani-Hani, J. (2021). The moderating influence of managers strategic thinking on the effect of talent management on organization core competency. *Manage. Sci. Lett.* 11(1), 213–222. Google Scholarズ
- [7] Yang, C. C. (2015). The integrated model of core competence and core capability. *Total Quality Manage. Bus. Excellence, 26*(1), 173–189. Google Scholar ス
- [8] Wernerfelt, B. (1984). A resource-based view of the firm. Strat. Manage. Working paper 307, 171– 180. Google Scholar ス
- [9] García-Manjón, J. V., and Romero-Merino, M. E. (2012). Research, development, and firm growth. empirical evidence from european top R&D spending firms. *Res. Policy* 41(1), 1084–1092. Google Scholarズ
- [10] Bleeke, J., and Ernst, D. (1991). The way to win in cross-border alliances. *Harvard Bus. Rev.* 69(1), 127–135. Google Scholar ス
- [11] Gulati, R., and Sytch, M. (2008). Does familiarity breed trust? Revisiting the antecedents of trust. Manag. Dec. Econ. 29(1), 165–190. Google Scholar.
- [12] Madueno, J. H., Jorge, M. L., Conesa, I. M., and Martínez-Martínez, D. (2016). Relationship between corporate social responsibility and competitive performance in spanish SMEs: empirical evidence from a stakeholders' perspective. *BRQ Bus. Res. Quart.* 19(1), 55–72, Google Scholarx<sup>→</sup>
- [13] Ljungquist, U. (2008). Specification of core competence and associated components: a proposed model and a case illustration. *Eur. Bus. Rev.* 20(1), 73–90. Google Scholar x<sup>3</sup>
- [14] Duan, L. (2019). The impact of the concept of core competence on contemporary enterprise management ideas. Finan. Soc. Sci. Res. 2019, 600–604. Google Scholar x<sup>3</sup>
- [15] Wu, H.-K., Lee, S. W.-Y., Chang, H.-Y., and Liang, J.-C. (2013). Current status, opportunities and challenges of augmented reality in education. *Comp. Educ.* 62(1), 41–49. <u>Google Scholar</u> ×
- [16] Ernst, J., and Monroe, M. (2004). The effects of environment-based education on students' critical thinking skills and disposition toward critical thinking. *Environ. Educ. Res.* 10(1), 507–522. Google Scholarx<sup>¬</sup>
- [17] Sharples, M., de Roock, R., Ferguson, R., Gaved, M., Herodotou, C., Koh, E., et al. (2016). Innovating Pedagogy 2016: Open University Innovation Report 5. Milton Keynes: The Open University. Google Scholar 2
- [18] Sharples, M. (2019). Practical Pedagogy: 40 Ways to Teach and Learn. London: Rutledge. Google Scholar≯
- [19] Ferguson, R., Coughlan, T., Egelandsdal, K., Gaved, M., Herodotou, C., Hillaire, G., et al. (2019). Innovating Pedagogy 2019: Open University Innovation Report 7. Milton Keynes: The Open University., Google Scholar×<sup>3</sup>
- [20] John, K. S., and McNeal, K. (2017). The Strength of Evidence Pyramid [Online]. National Association of Geoscience Teachers. Available online at:

https://nagt.org/nagt/profdev/workshops/geoed\_research/pyramid.html (accessed May 23, 2019)., Google Scholar

- [21] Batty, R., Wong, A., Florescu, A., and Sharples, M. (2019). Driving EdTech Futures: Testbed Models for Better Evidence. London: Nesta. Google Scholar≯
- [22] Herodotou, C., Aristeidou, M., Sharples, M., and Scanlon, E. (2018). Designing citizen science tools for learning: lessons learnt from the iterative development of nQuire. *Res Pract. Technol. Enhanced Learning*, 13(1). 1-23. Google Scholar ×<sup>7</sup>
- [23] Puttick, R., and Ludlow, J. (2012). Standards of Evidence for Impact Investing. London: Nesta. Google Scholarx<sup>3</sup>
- [24] Bodily, R., Kay, J., Aleven, V., Jivet, I., Davis, D., Xhakaj, F., et al. (2018). Open learner models and learning analytics dashboards: a systematic review. In *Proceedings of the 8th International Conference on Learning Analytics and Knowledge* (Sydney, NSW:ACM), 41-54. Google Scholar ×
- [25] Siemens, G. (2005). Connectivism: a learning theory for the digital age. Int. J. Instr. Technol. Distance Learn, 2(1), 3–10. Google Scholar≯
- [26] Linnemanstons, K. A., and Jordan, C. M. (2017). Learning through place: evaluation of a professional development program for understanding the impact of place-based education and teacher continuing education needs. J. Sustain. Educ. 12(1), 1–25. Google Scholar ×<sup>7</sup>
- [27] Semken, S., and Freeman, C. B. (2008). Sense of place in the practice and assessment of placebased science teaching. *Sci. Educ.* 92(1), 1042–1057. Google Scholar≯
- [28] Herodotou, C., Aristeidou, M., Sharples, M., and Scanlon, E. (2018). Designing citizen science tools for learning: lessons learnt from the iterative development of nQuire. *Res Pract. Technol. Enhanced Lear.* 13(1), 01-23. Google Scholar ×<sup>3</sup>
- [29] Aristeidou, M., Scanlon, E., and Sharples, M. (2017). Design processes of a citizen inquiry community. In Citizen Inquiry *Synthesising Science and Inquiry Learning*, eds C. Herodotou, M. Sharples, and E. Scanlon (Abingdon: Routledge), 210–229. Google Scholar ×
- [30] Anderson, T., and Shattuck, J. (2012). Design-based research: a decade of progress in education research? *Educ, Res.* 41(1), 16-25. Google Scholar ス
- [31] Azevodo, R., Harley, J. Trevors, G., Duffy, M. Feyzi-Behnagh, R., (2013). Using trace data to examine the complex roles of cognitive, metacognitive, and emotional self-regulatory processes during learning with multi-agent systems. in *International Handbook of Metacognition and Learning Technologies*, eds R. Azevedo and V. Aleven (New York, NY: Springer New York), 427-449. Google Scholarズ
- [32] Ballard, H. L., Dixon, C. G. H., and Harris, E. M. (2017). Youth-focused citizen science: examining the role of environmental science learning and agency for conservation. *Biol. Conserv.* 208(1), 65–75. Google Scholar ス
- [33] Benitti, F. B. V. (2012). Exploring the educational potential of robotics in schools: a systematic review. *Comput. Educ.* 58(1), 978–988. Google Scholar ×<sup>3</sup>
- [34] Boakes, E. H., Gliozzo, G., Seymour, V., Harvey, M., Smith, C., Roy, D. B., et al. (2016). Patterns of contribution to citizen science biodiversity projects increase understanding of volunteers' recording behaviour. *Sci. Rep.* 6(1), 33051, 01-15. Google Scholar ×
- [35] Bodily, R., Kay, J., Aleven, V., Jivet, I., Davis, D., Xhakaj, F., et al. (2018). Open learner models and learning analytics dashboards: a systematic review. In *Proceedings of the 8th International Conference on Learning Analytics and Knowledge* (Sydney, NSW: ACM), 41-45. Google Scholar ×



- [36] Bani-Hani, J. (2021). The moderating influence of managers strategic thinking on the effect of talent management on organization core competency. *Manage. Sci. Lett.* 11(1), 213–222. Google Scholar ×
- [37] Aronsson, M., & Birch, D. (2004). Education matters—but does entrepreneurship education? An interview with David Birch. *Academy of Management Learning and Education*, *3*(1), 289–292. Google Scholar ス
- [38] Bazeley, P., & Richards, L. (2000). The NVivo qualitative project book. London: Sage. Google Scholar≯
- [39] Bennett, R. (2006). Business lecturers' perceptions of the nature of entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, *12*(1), 165–188., Google Scholar ス
- [40] Bridge, S., Hegarty, C., & Porter, S. (2010). Rediscovering enterprise: Developing appropriate university entrepreneurship education. *Education and Training*, 52(1), 722–734.
- [41] Chang, J., & Rieple, A. (2013). Assessing students' entrepreneurial skills development in live projects. *Journal of Small Business and Enterprise Development*, 20(1), 225–241., Google Scholar →
- [42] Cope, J. (2005). Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, 29(1), 373–397. Google Scholarズ
- [43] Cope, J. (2011). Entrepreneurial learning from failure: An interpretative phenomenological analysis. *Journal of Business Venturing*, *26*, 604–623. Google Scholar ス
- [44] Cope, J., & Watts, G. (2000). Learning by doing: An exploration of experience, critical incidents and reflection in entrepreneurial learning. *International Journal of Entrepreneurial Behavior & Research*, *6*, 104–124., Google Scholar
- [45] Corbett, A. (2005). Experiential learning within the process of opportunity identification and exploitation. *Entrepreneurship: Theory and Practice*, 29(1), 473–491. Google Scholar≯
- [46] Franco, M., and Haase, H. (2013). Firm resources and entrepreneurial orientation as determinants for collaborative entrepreneurship. Manage. Dec. 51, 680–696. Google Scholar≯
- [47] Webber, G., and Miller, D. (2016). Progressive pedagogies and teacher education: a review of the literature. *McGill J. Educ.* 51(1), 1061–1079. Google Scholar≯
- [48] Westlund, J. K., and Breazeal, C. (2015). The interplay of robot language level with children's language learning during storytelling. In Proceedings of the Tenth Annual ACM/IEEE International Conference on Human-Robot Interaction Extended Abstracts (Portland, OR: ACM). Google Scholar →
- [49] Winne, P. H. (2017). Leveraging big data to help each learner upgrade learning and accelerate learning science. *Teach. Coll. Rec. 119*(1), 1–24. Google Scholar ×
- [50] Wood, D., Bruner, J. S., and Ross, G. (1979). The role of tutoring in problem solving. J. Child Psychol. Psychiatry 17, 89–100. Google Scholar ×
- [51] Wu, H.-K., Lee, S. W.-Y., Chang, H.-Y., and Liang, J.-C. (2013). Current status, opportunities and challenges of augmented reality in education. *Comp. Educ.* 62(1), 41–49. Google Scholar ス
- [52] Zakaria, N. Y. K., Zaini, H., Hamdan, F., and Norman, H. (2018). Mobile game-based learning for online assessment in collaborative learning. *Int. J. Eng. Technol.* 7(1), 80–85. Google Scholar ス
- [53] Zimmerman, B. J. (2000). "Attaining self-regulation: a social cognitive perspective," in Handbook of Self-Regulation, eds M. Boekaerts, P. R. Pintrich, and M. Zeidner (San Diego, CA: Elsevier), 13–39. Google Scholarx<sup>3</sup>
- [54] Aithal P. S, Shailashree V. T., Suresh Kumar P. M., (2015). A New ABCD Technique to Analyze Business Models & Concepts. *International Journal of Management, IT and Engineering*, 5(4), 409 - 423. Google Scholarx<sup>3</sup>



- [55] Aithal, P. S. (2016). Study on ABCD analysis technique for business models, business strategies, operating concepts & business systems. *International Journal in Management and Social Science*, 4(1), 95-115. Google Scholar x<sup>3</sup>
- [56] Kumari, P., & Aithal, P. S. (2020). Growth & Fate Analysis of Mangalore International Airport–A Case Study. *International Journal of Case Studies in Business, IT, and Education (IJCSBE)*, 4(2), 71-85. Google Scholar →
- [57] Aithal, S., & Aithal, P. S. (2016). ABCD analysis of Dye-doped Polymers for Photonic Applications. *IRA-International Journal of Applied Sciences*, 4(3), 358-378. Google Scholar ス
- [58] Aithal, P. S., Shailashree, V., & Kumar, P. M. (2016). Application of ABCD Analysis Framework on Private University System in India. *International journal of management sciences and business research*, 5(4), 159-170. Google Scholar ×
- [64] Aithal, P. S., Shailashree, V., & Kumar, P. M. (2016). ABCD analysis of Stage Model in Higher Education. *International Journal of Management, IT and Engineering*, 6(1), 11-24. Google Scholar ×
- [65] Aithal, P. S. (2021). Analysis of systems & technology using ABCD framework. *Chapter*, 8(1), 345-385. Google Scholar≯
- [66] Aithal, P. S., Shailashree, V., & Kumar, P. M. (2016). Analysis of NAAC Accreditation System using ABCD framework. *International Journal of Management, IT and Engineering*, 6(1), 30-44. Google Scholarx<sup>3</sup>

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