# Research on the Application of Situated Learning Theory in College Entrepreneurship Programs

Tong Wanting<sup>1</sup>, Zeng Xiuzhen<sup>2,\*</sup>

<sup>1</sup>School of Entrepreneurship and Innovation, Shenzhen Polytechnic University, Shenzhen, Guangdong, 518000, China <sup>2</sup>Unesco Unevoc Center, Shenzhen Polytechnic University, Shenzhen, Guangdong, 518000, China \*Corresponding author

Keywords: Teaching reform, situated learning, innovation and entrepreneurship

*Abstract:* The development of entrepreneurship education in colleges and universities has showed some weaknesses, such as teaching practice activities too centered around formalities, lack of authentic start-up practice projects, and lack of emotional resonance in entrepreneurship cultivation. In order to effectively solve these challenges, this paper proposes to introduce the situated learning theory into the entrepreneurship and innovation courses. In doing so, a paradigm to apply situated learning in entrepreneurship education has been developed, covering the overall design of the program, and the principles and framework of micro teaching activities, which constitute the newly-proposed 4 spiral theory of situated learning theory will provide strong support for the popularization and deepening of entrepreneurship education, in internalizing knowledge, constructing new thinking, improving abilities, and stimulating emotional resonance.

## **1. Introduction**

The new era has put forward new requirements for the high-quality development of vocational education. The reform of higher education is a systematic and comprehensive one, whose root lies in teachers, carrier in teaching materials, core in teaching methods, that ultimately get integrated into curriculum construction<sup>[1]</sup>. This is especially true for innovation and entrepreneurship education - its strong practicality and high degree of cross-over integration has posed a bigger challenge to the effectiveness of classroom teaching and the achievement of the teaching goals. Situated learning theory, which follows the educational concept of "life is education", takes students as the main subjects, emphasizing the knowledge construction based on experience and feelings, thus highly compatible with the requirements of entrepreneurship and innovation education. On the other hand, in the context of digital transformation of education, the introduction of digital technologies such as AR and VR has provided strong technological support for the development of situated learning.

## 2. Background of Entrepreneurship Education

## 2.1 Origin of entrepreneurship education

In the 1940s, entrepreneurship education was first launched at Harvard University. In the late 1960s, the first school to offer entrepreneurship degrees in undergraduate education appeared. The following decades witnessed entrepreneurship education gradually integrated into the American education system and became an invincible part. The American entrepreneurship education discipline and system has gradually come into being<sup>[2]</sup>.

In 2009, the Ministry of Education identified 9 universities, including Tsinghua University, as the pilot for entrepreneurship education in China, which marked the beginning of entrepreneurship education in China<sup>[3]</sup>. Afterwards, entrepreneurship education in China evolved from an elite module for a few people, to a general offering for the public, and then developed into a level-based system for different sectors. Entrepreneurship education has a strong practical nature, and a high degree for cross-sectoral integration. It also encompasses knowledge and skills from management, finance, law, marketing and other fields. On the other hand, students may have find it hard to construct systematic connections between the different knowledge points by themselves, demanding a project-based approach for curriculum design and personal growth. In terms of the contents of teaching and curriculum objectives of entrepreneurship education, students would benefit from a continuous practice to hone their learning outcomes that go beyond mere memorization and basic understanding to more in-depth application, analysis, evaluation and creation.

#### 2.2 Problems in teaching entrepreneurship

Practice has proved that there is a huge gap between learning entrepreneurship theory and becoming an entrepreneur. A sustained and effective teaching practice serve as the foundation, but also a challenge for entrepreneurship education. At present, entrepreneurship education still faces the following predicaments:

**Teaching practice is too focused on formality.** Cognitive behaviorism believes that long and focused time into high-intensity practice and deliberate practice can achieve excellent performance. To learn and master entrepreneurship methods and skills, students need different types of practical activities to hone their skills. However, due to the time and space constraints of classroom teaching, most entrepreneurship teaching activities are by case studies, role-playing and other forms, which are vastly different from any authentic star-up situation. As a result, students are no longer the main activists in teaching practice, but only a participating audience, who complete the flow like a "Playing House" game. In the flow, students could only construct the knowledge framework in a linear way, lacking effective support for the application and recreation of knowledge and skills, let alone the shaping of a true entrepreneurial thinking.

Lack of authentic start-up projects. With the deepening of entrepreneurship research, researchers tend to replace the previous trait-based models with attitude and psychological models, or what is often referred to as the mental model. An entrepreneurship mindset is defined as "the ability of individuals to quickly perceive, act and mobilize resources under highly uncertain conditions"<sup>[4]</sup>. Its core elements are the way of thinking and the ability to act. Therefore, entrepreneurship education is different from the three-stage teaching approach of "theoretical preparation first, then observing others, followed by doing it yourself" that governs other disciplines. Entrepreneurship and innovation education needs to deliver a way of thinking and action, whose ideal model is to carry out teaching activities based on real projects. However, on the one hand, the practice of entrepreneurship teaching is complicated in nature as it involves cross-industrial activities; entrepreneurship projects are also constrained by time costs, financial costs and other

considerations, some of which are uncontrollable and unpredictable. Therefore, entrepreneurship teaching that is based on real authentic projects can only exist in fewer cases, lacking the condition for wide application.

The cultivation of entrepreneurship spirit lacks emotional resonance. The cultivation of entrepreneurship spirit has proven to be a difficult area in entrepreneurship education. A lack experience among students makes it hard to let any practical activities trigger a sense of purpose. Any efforts to build purposeful learning would have no clue to start with. Dewey said in his famous educational article My Educational Credo that "Moral education should focus on the concept of school as a way of social life. The best and most profound moral training is precisely the outcome of people's proper interaction with others in the unity of work and thought" <sup>[5]</sup>. Entrepreneurship education on the other hand, due to its pursuit of achievement and focus on the progress of projects and knowledge comprehension, fails to build this "proper interaction with others", only to leave the entrepreneurship spirit a classroom talk.

#### **3. Solutions**

In order to effectively address these problems of entrepreneurship education, the authors of this paper has introduced the theory of situated learning into their teaching practices. Situated learning emphasizes putting learners in situations, thus triggering thinking and action, constructing individual learning experience and meaning, and solving the problem that teaching practice is a mere formality. Situated learning has been striving to address the weakness of "the presence of knowledge" but "the absence of people" in traditional classroom teaching. Its teaching philosophy advocates for the growth and development of people to be more important than the mastery of knowledge itself. It aims for the construction of learning subjects as more important than the structure of knowledge itself, when it comes to methodology. In terms of teacher-student relationship, it emphasizes the principal role of students to be ahead of the leading role of teachers. The approach stimulates the cultivation of students' entrepreneurship mindset and spirit.

## 3.1 Theoretical evolution of situated learning

Dewey was the first one to introduce "situation" into education research. In How We Think published in 1910, Dewey mentioned that "thinking starts from the situation of a direct experience." He believed that thinking does not happen from nowhere, but must be derived from an actual tested situation, after exploration and reflection." Thinking happens in an original situation, but also ends with this. Its purpose and results are determined by the situation from which they originated."<sup>[6]</sup> In schools, training students how to think often fails, mainly because they cannot guarantee that there are situations leading to an authentic thinking experience, as real life does.

In 1968, Walter Mischel, a famous American cognitive scientist, published a paper proposing that situation is the key factor to stimulate people's character change. This turns out to be the famous behavioral theory called "situation theory". Walter Michel believes that situation refers not only to the general work cases, but also the interaction between specific behaviors and the environment. For example, when a student is found sleeping in class by the teacher, he feels afraid and apologizes in a rush to avoid punishment. This forms a situation. A complete situation, which includes not only the physical existence of objects, environments, and people, but also the individual's response to the outside world, or the internal interpretation process of people in face of an external stimuli. The goal is to give a meaning for this interactive situation and decide how to act. J. Lave, the founder of the anthropology-oriented situational learning theory, clearly pointed out that "situation" indicates, on many levels of particularity and universality, that a specific social practice has multiple interactive links with other aspects of social processes in the activity system <sup>[7]</sup>.

In 1989, J. Brown, A. Collins and P. Duguid published the famous paper Situational Cognition and Learning Culture from the perspective of psychology, and put forward the view that knowledge has a situational nature, as well as a situational learning model. In 1991, J. Lave and E. Wenger conducted a research from the perspective of sociology and published the book Situated Learning: Legitimate Peripheral Participation. They believed that learning was the practice of participating in a social culture and reflected on the "apprentice model".

Compared with the teaching concepts of PBL and OBE, situated learning also needs to rely on specific project-based tasks in teaching to truly reproduce the scenes of labor and work as much as possible. The difference is that situated learning pays more attention to the emotion and identity transformation generated when people interact with the external environment (including the physical environment and social environment). When carrying out project-based tasks in the classroom, there are not only knowledge and information exchange loops between students and teachers, but also emotional and information exchange loops. This gives individuals a richer learning experience and stands closer to the real situation, bridges education and life, and strives to address the silos of classroom, workplace and society.

## 3.2 Coupling of the situated learning theory with entrepreneurship education

The training objectives are consistent. Situated learning can enable students to acquire skills to distinguish reliable information from unreliable information, have the patience for longer-term thinking, gain comprehensive ability to identify patterns in unfamiliar environments, cultivate the flexibility to work across disciplines and cultures, thus creating innovative solutions, which is consistent with the capabilities identified in the training objectives of entrepreneurship education.

The cultivation pathways are coherent. Geoffrey Timmons, the godfather of entrepreneurship education, once said that entrepreneurship "not only means to establish new enterprises, raise funds and provide employment opportunities, but also to innovate, create and break through, and to nurture human innovation spirit and improve human life"<sup>[8]</sup>. Authentic entrepreneurial actions are not only stimulated by external interests, but also by internal values, including the pursuit of self-actualization and the remodeling of identity. Situated learning advocates an approach that puts learners in situations to simulate a physical environment that would trigger the exchange of information and emotions, thus stimulating individuals to make active choices and design their actions. In this way, they are transformed from a participatory marginal audience to a leading role at the core, able to incorporate new experience into their original knowledge map, and complete the construction of individual values.

Compatibility in objectives and pathways between the situated learning theory and entrepreneurship education allows the former to be widely applied in the latter, which would help break through the difficulties and pain points in entrepreneurship education, and improves the quality and outcomes of talent training.

### 4. Specific Implementation Plan

## 4.1 Overall principles of situated learning based entrepreneurship curriculum design

In the digital era, with the help of various tools available on the Internet, communication technologies, visualization and simulation technologies, and the use of teaching aids such as AR&VR, teachers can provide students with a more realistic learning situation experience based on experiments and actions. Students can approach industry mentors without limitation of time and space, find resources and support each other through online communities, and conduct rehearsals by virtual training projects. The overall design of entrepreneurship education based on situated

learning shall reflect the following 10 principles:

**Real world relevance**. As far as possible, teaching practice and activities should match the entrepreneurs' experience in the real world, so that students could actively work with abstract concepts and theories in a realistic and highly socialized situation. Students who participate in situated learning would have the motivation to persevere in learning, as long as they can simulate what is really important - the significance and relevance brought by social structure and culture to the discipline <sup>[9]</sup>.

**Extendability of the task list.** The decision-making and unfolding of real entrepreneurship activities are full of uncertainty and ambiguity, that is, relatively undefined, followed by multidimensional explanations and multiple solutions. Therefore, the task list of teaching should have some flexibility, leaving students space to decide on the tasks and subtasks needed to deliver the main goals. Compared with the traditional "ladder courses" with clear learning routes, "mountaineering courses" perhaps is more suitable for entrepreneurship education, that is, programs that offer collaborative and exploratory learning journeys that could unfold in multiple ways, but anchored on a certain "theme".

**Continuity of learning activities.** Real entrepreneurship activities involve complex tasks, making it necessary for situated learning to take place both inside and outside the classroom, online and offline. Students need a lot of time and intellectual resources to complete the investigative tasks, write relevant reports, test and iterate the solutions through teamwork.

**Diversity of learning resources.** Learners need to get a list of resources to help them seek support from multiple stakeholders and gain different perspectives. This can not only help students approach tasks from both theoretical and practical perspectives, but also enable students to improve their ability to screen and distinguish information in the learning process.

The collaborative nature of teamwork. Whether in entrepreneurship courses or in the real world, individual learners cannot achieve success by working alone. Real-world-based activities make collaboration a part of the task, and train and improve students' leadership, communication and collaborative skills.

A closed-loop of the learning process. Reflection and review are an indispensable part of real entrepreneurship activities, closing the loop for all projects. Situated learning, whether for individuals or teams, requires students to reflect on their progress after taking actions, covering the specific actions, modes, and the degree of achievement of goals.

**Interdisciplinary learning content.** The development and output of real entrepreneurship activities goes beyond specific disciplines and fields. Therefore, students are encouraged to adopt different roles and think and act in an interdisciplinary way. It is important to let students from various backgrounds form a learning community, so they could quickly enter the real entrepreneurship situation and achieve better results.

**Integrity of learning outcomes.** Learning outcomes are not just exercises or steps to prepare for other achievements. The unfolding of situated learning will eventually create a complete product, but the outcomes in the process are also valuable in themselves. The student outcomes must be a complete prototype, able to connect with the real world and verify the conclusion.

**Wide range of evaluation methods.** Situated learning focuses more on the experience gained by students in the process, the trigger of internal motivation, and emotional resonance. From the perspective of entrepreneurship education, the assessment of students' learning outcomes should not only include summative assessment, but also process assessment and value-added assessment. Teachers, peers, corporate mentors and other key stakeholders shall also engage in the assessment.

**Openness of achievement appraisal.** This openness not only applies to the answer, since there is no longer a standard answer, but more importantly, the process and results of achievement appraisal, as it should encounter real world. People from industries, enterprises, governments, and

various organizations are welcome to join the appraisal. Participation can be carried out online and offline through roadshows, product testing sessions, user experience day, exhibitions, etc.

#### 4.2 Micro design of situated learning based entrepreneurship curriculum unit

A complete and effective design should be able to integrate the emotion and the physical scene into a universal situation, providing internal and external driving forces for individuals to learn and grow, with clear borders and restrictive conditions. Meanwhile, in order to deliver the designed goals, learners should be provided with sufficient scaffolding to constantly expand the boundary of cognition in practice, while carrying out analysis, evaluation and creative learning activities. In the learning process, with the learning community providing support, an effective interaction could be formed between teachers and students, and among student peers, where students complete practical training closer to the real situation by constantly changing their roles and perspectives. The more they stay in contact with the real community of any disciplines, the better they will be able to "handle ambiguity" and practice "higher level analysis and complex communication" as professionals<sup>[10]</sup>. In the whole learning process, there should always be loops for knowledge and information exchange, and emotional information exchange. Therefore, the micro design of entrepreneurship education that is based on situated learning must present a "four-spiral" structure to drive the implementation of teaching activities. The four spirals are: scene, identity, tools, and emotion.

## 4.2.1 Scenes: external environment design for learners

In situated learning, scene refers to the physical external environment where a real or simulated teaching project occurs and develops. If you want to design a marketing plan for a product, the scene for this project-based teaching task would involve the function, appearance, price of the product, as well as user profiles of customer segments, marketing budget, implementation cycle, etc. Scenes are the basis for the contextualization of entrepreneurship education and are strongly related to the real world. Specific teaching design should include direct scenes and indirect scenes. The direct scene is where students "resolve a real issue in a real setting", which can be a real proposition of the enterprise, or visiting directly the enterprise as a field study. The indirect scene is an immersive physical environment built by the teachers, through case analysis, video and audio rendering, role playing, realistic game-playing and other formats, where learners association and imagination could be drawn on. In the era of information teaching, the maturity of AR and VR technology provides more diversified options for how scenes can be presented. On the other hand, traditional classroom simulated games are still a positive option, as long as their parameters and rules are properly set, to provide more detailed data. Attention shall be paid to make sure they are regular and constructive, rather than mere exercises or symbolic play.

## 4.2.2 Identity: internal environment design for learners

The individual is protagonist in the work situation. Previously in teaching practice and activities, the reason why it's only ends up as a "house play" is that the learner, as the key subject, tends to regard himself as a student in the internal environment design, not able to transform or identify who they are, thus only investing themselves in a limited way, or not taking it seriously. Therefore, in situated learning, individuals should be aware of their new identity and what others expect of their behaviors. The same person's level of group support, external evaluation received, dimensions of thinking and decision-making mechanism will be affected due to different identities. In parallel, an organization is also composed of a variety of overlapping and connected roles, whom not only need to cooperate with others, but also may face conflicts. Therefore, teachers need to help learners enter

a new identity through a series of designs such as guidance, facilitation and control, to show how they could lead, plan and respond to the new identity. Only when everyone in the learning group fully enters their new identity, can they gain more valuable practical experience that resonates with the cognitive foundation.

## 4.2.3 Tools: learner's scaffolding design

In the process of situated learning, tool design plays the role of scaffolding, providing knowledge points, skill points, teaching tools, etc. Through the organic integration of metaphysical theoretical knowledge and physical instruments and equipment, the teachers are helping learners get effective support in the situation and complete practice activities. The process of learners' selection, exploration and application of all tools in the learning process is a continuous realization of teaching objectives. In the design of tools, attention should be paid to the subject's situation, which is composed of learners' existing knowledge and experience, so that tools become a powerful part of learners' dynamic and complex knowledge structure, able to be copied and applied to other situations.

## 4.2.4 Emotion: design of learners' emotional trigger

Learning is not only a process of integrating into the situation, but also one that promotes its evolution. Participation in situational learning goes beyond stress reaction to the situation, but provides a physical and mental experience in which learners are completely immersed to grow experience<sup>[11]</sup>. The research of emotional psychology shows that the individual's emotion has at least three functions, namely motivation, reinforcement and regulation, to advance cognition. Entrepreneurship is an important emotional resource, that encompasses optimism, enthusiasm, tenacity, courage, etc. Caton et al believe that emotion plays a vital role in the process of entrepreneurship, especially at the beginning<sup>[12]</sup>. Barron believes that in an uncertain and unpredictable entrepreneurial environment, emotions may have an impact on key aspects of the process<sup>[13]</sup>. Suetalis et al believe that emotion may play a more important role than rationality in the process of entrepreneurship<sup>[14]</sup>. Therefore, in situated learning, it is important to design emotional triggers to help learners understand the pressures, challenges and decision-making risks faced by real entrepreneurs. It is worth noting that collaborative learning can be divided into puzzle teaching, constructive cognitive conflict, mutual questioning, scripted cooperation and other ways. There are two relative processes - cognitive conflict and cognitive support - in the learning process. Situated learning will not only create pleasure during win-win cooperation, but also pressure and urgency. Especially when there is conflict in the team, teachers should provide a more relaxed environment where learners can pick up collaborative skills such as communication and empathy. The emotions running through these steps will have an elevated effect on cognitive activities, strengthening students' cognitive outcomes and retention of knowledge.

### **4.2.5 Relationship of the four spirals**

Spiral structure was first applied to the field of biology to study the complex transformation process in crystallography or bio-molecular science. Later it was transferred to dissect interaction and dynamic evolution among various elements. The four elements in situated learning have nonlinear relationships that interact with each other, forming a four spiral structure. The four elements are relatively independent, as they undertake different tasks in the whole teaching situation: the scene creates an overall framework of situated learning, identity is the internal driving force of situation advancement, tools are the leverage of situated learning, and emotion is the catalyst for the achievement of situated learning. In the design of situated learning, teachers should

give comprehensive consideration of the four factors. Only when the four factors form mutual causal relationships, multi-point cooperation, and cross integrate each other, can they unleash the greatest advantage of situated learning and help students to complete the internalization of knowledge, the construction of thinking, the improvement of ability, and the sublimation of the emotion.

## 4.3. Process design of situated learning based entrepreneurship classes

## 4.3.1 Creating a situation to trigger learning motivation

Brown Collins and Duguid proposed that knowledge is a part of activities, backgrounds and cultural products. It originates from activities and situations and is a cognitive product in situations<sup>[15]</sup>. Knowledge can only be meaningful when it is in a certain situation, so does the understanding of it. Therefore, in the entrepreneurship class, it is necessary to select a typical situation for learners based on the teaching content and teaching objectives, so that students can carry out a series of learning activities meaningfully. Typical situations includes physical ones and social ones. The creation of physical situation could rely on social practice, enterprise visit, case teaching, virtual training room, as well as rendering the atmosphere through music, patterns, and the soft decoration of the classroom. Social situations could include any roles' responsibilities and tasks, processes and rules, interactions and relationships among the roles. In the current entrepreneurship teaching practice, teachers often attach importance to the creation of physical situations, but ignore the social situations, making it difficult for learners to complete the transformation of identity and stimulate their internal learning motivation. Therefore, situation should be created in a way that is diversified, multi-dimensional and well-structured. The situation design should take both internal and external factors into consideration, including environment, behavior, reshaping of values, transformation of identity. Learners should be put in the context of our times, turning passive learning into the discovery of self needs, to better understand the true meaning of entrepreneurship.

#### 4.3.2 Immersion into the situation for interactive and inquiry learning

People say "we can only move others with both emotions and reasons". In the process of situated learning, attention should be paid to the inter-play of the knowledge loop and emotional loop. Learners' participation are not only cognitive- and behavioral-based, but also emotional and cultural specific. No decision can be made without the involvement of emotion. In a typical situation, students would be able to feel joy, pressure, tension, self-confidence and other emotions. Driven by the responsibility of identity and fueled by emotions, learners would try to solve problems, answer questions and promote the advancement of the situation in the learning community. In the process, teachers act as coaches to help students clarify their goals, develop plans, and deliver knowledge and skills to students as tools for implementation. On the other hand, teachers should encourage students to explore according to their own curiosity, which means that teachers sometimes need to act outside the textbooks, participate in games and cooperation. In the process of inquiry learning, learners will be the main activist, and change their cognitive process from recurrent memory to flexible use of knowledge, in which case the individual's knowledge and ability are constantly developed and distributed.

Learning is not only a process of individual's efforts for activities construction, but also a process of interaction between individuals and situations, participation in practice, and a process of social consultation. Leff et al pointed out that learning is a social team's legitimate peripheral participation, a process in which students gradually enter the community of practice from the peripheral, moving towards the center when they get the opportunity to participate legitimately<sup>[16]</sup>.

Therefore, in the process of immersing into the situation, teachers should guide and encourage the social consultation, and encourage the establishment of learner community. Learners should try to gradually develop from a peripheral position to a core for more substantive participation, and in the process gradually clarify their identity and establish their self-worth in the team, while teachers need to stay at the back. For entrepreneurship education in particular, students with different knowledge backgrounds should be encouraged to form study groups, so that students can better observe the similarities and differences of thinking modes and learning actions, to achieve better learning results.

## 4.3.3 Exiting the situation to complete the construction and reflection of meaning

Jean Piaget believes that practice is not independent of learning, and meaning is not separated from practice and situation, but negotiated in them<sup>[17]</sup>. In typical situations, learners would change their roles, stay in them, and constantly confirm the initiative and sense of value of the subject. At the end of situated learning, it is necessary to design the exit of the situation, so that learners can jump out of their roles, reflect and summarize from the perspective of the character with a panoramic vision, to analyze and conclude the information flow and emotion flow. This reflection includes not only narrative reflection, emotional reflection, but also insightful reflection, analytical reflection, evaluative reflection and critical reflection. This reflection will eventually transform learning from closed absorption to open and extensive storage, from unilateral acquisition of information to long-term effective synthesis, and facilitate students to complete deep, long-lasting and meaningful learning. At this step, it is also critical for teachers to carry out the diagnosis and management of cognitive growth on time, pay attention to the knowledge, skills and strategies shown by learners in the situation, as well as their tool use ability, collaborative ability, and the degree of interaction with physical and social scenes in the learning community. According to the peak-end rule, teachers should give these evaluations and feedback to students in a form that is ceremonial, and clarify the meaning of these behaviors in the real situation, so that students can reach the peak state of emotion and knowledge and build an anchor. At this point, the learners have completed the meaning construction of the whole practical behavior, improved their self-efficacy and sense of value, confirmed that they have finished the task and are competent - this marks the completion of a full situated learning cycle. See Figure 1 for the complete theoretical framework of situated learning design.



Figure 1: Theoretical model of situated learning

## 4.3.4 Digital technologies providing support for situated learning

Situations are the basis of situated learning. With the development of technology, "the value of situational learning is not limited to real life venues and practices, as the benefits of situated learning can be achieved by carefully designing web-based learning environments."<sup>[18] T</sup>echnology not only provides diversified ways to gain experience for situated learning, but also a method of sharing and collaboration, in a virtual simulation environment. This includes: high-speed Internet connection, multimedia information delivery, which involves dynamic data and visualization of complex phenomena, with available access to remote instruments; Asynchronous and synchronous communication and social networking tools, which involves collaborative online surveys, resource sharing and knowledge building; Smart tutoring systems, virtual laboratory and feedback mechanisms that can capture rich information about students' performance and evaluate students progress made in acquiring knowledge, skills and cognitive growth.

#### 5. The Significance of Situated Learning for Entrepreneurship Education (Conclusion)

Combining theory with practice. Entrepreneurship education has the drawbacks of lacking reallife projects, and formality-based teaching practice. Through the interaction of scenes, roles, emotions, and tools, situated learning enables learners to have the ability to recognize complex real situations, complete tasks, construct knowledge, and manage their own learning.

Value building. Situated learning pays special attention to the transformation of learner identity and the catalytic effect of emotions. The shaping of entrepreneurship is no longer through the traditional way of talk and education, but through multi-stakeholder feedback in practical activities to deliver self-worth as a driving force. In essence, entrepreneurs need to create positive value for society in order to operate for a long time. When such external requirements are internalized into value needs, learners will immerse themselves in the situation to achieve a positive cycle, thus reaching the teaching goals.

Creative learning. Situated learning encourages collaborative learning. In the process of exploration, learners could communicate and question each other, understand their ideas, and put forward new ones. At the same time, both teachers and students are members of a learning community, and there is a symbiotic relationship between them. Therefore, the process of achieving learning goals is a creative learning process for both teachers and students. Students develop knowledge and ability by participating in activities, and teachers determine their identity and status as collaborators in the process of guiding the students.

Dewey said: "Education is the process of life, not the preparation for future life", "Education that is not realized through various life forms or life forms that are worth living, is just a poor substitute for the deficiency in reality, while the result could only be rigid and dull."<sup>[20]</sup> The development of situated learning couples multiple dimensions by design, letting students put themselves in entrepreneurial situations as far as possible, and provide effective and continuous experience for individuals to gain entrepreneurial thinking and the opportunity to take actions. More importantly, it produces emotional trigger and a chance of relationship interaction for the acquisition of entrepreneurial spirit. Situated learning should become one of the most important theoretical cornerstones in entrepreneurship education, and provide strong support for the popularization and deepening of entrepreneurship education.

## Acknowledgements

1) Construction and application of digital ecosystem for innovation and entrepreneurship education -- A case study of national teaching and learning database in entrepreneurship and

innovation education (2021 Guangdong Province Research and Practice Project in Teaching and Learning Reform for Higher Vocational Education; Project Number: GDJG2021418);

2) Erasmus+ Capacity Building in the field of higher Education, EUROPEAN COMMISON (Project Number: 609897-EPP-1-2019-1-ES-EPPKA2-CBHE-JP).

#### References

[1] Qin Huawei, Chen Guang, "3T" Reform in the Context of the Implementation of the "Vocational Education Aiming High" [J]. China Vocational and Technical Education, 2019 (33): 35-38

[2] Mei Weihui. Entrepreneurship Education in American Universities [M]. Hangzhou: Zhejiang Education Press, 2010: 229

[3] Fu Bo. Research on Entrepreneurship Education Based on Experiential Education Theory—Experience and Enlightenment of Haas Business School [J]. Higher Education Exploration, 2021 (11): 117-12

[4] Haynie, J. M., Shepherd, D., Mosakowski, E., Earley, C. A Situated Metacognitive Model of the Entrepreneurial Mindset [J]. Journal of Business Venturing, 2010, 25(2):217-229

[5] Dewey's Famous Pieces on Education, compiled by Zhao Xianglin and Wang Chengxu. Beijing: Educational Science Press, 2014; one hundred and eighty-four

[6] Mischel W., Personality and Assessment, New York: Wiley, 1968.

[7] Jonassen, David, & Susan Land. Theoretical Foundations of Learning Environments. Second Edition. Routledge, Taylor & Francis Group, 2012.

[8] Timmons Jeffry A., & Stephen Spinelli. New Venture Creation: Entrepreneurship for the 21<sup>st</sup> Century. McGraw-Hill/Irwin, 2007.

[9] Herrington J., Oliver R., & Reeves, T. C. (2003). Patterns of engagement in authentic online learning environments. Australian Journal of Educational Technology, 19(1), 59–71. Retrieved April 24, 2007, from http://www. ascilite. org. au/ajet/ajet19/herrington. html

[10] Dede, C., Korte S., Nelson, R., Valdez, G., & Ward, D. J. (2005). Transforming learning for the 21st century: An economic imperative. Naperville, IL: Learning Point Associates. Retrieved April 24, 2007, from http://www. learningpt. org/tech/transforming.pdf

[11] Yu Zeyuan, Na Mingming. Situated Learning: Connotation, Value and Implementation [J]. Journal of East China Normal University (Education Science Edition), 2023, 41 (01): 89-97

[12] Cardon, M. S., Foo, M. D., Shepherd, D., Wiklund, J. Exploring the Heart: Entrepreneurial Emotion is a Hot Topic[J]. Entrepreneurship: Theory and Practice, 2012, 36(1):1-10.

[13]-Baron R. A. The Role of Affect in the Entrepreneurial Process[j]. Academy of Management Review, 2008, 33(2):328-340.

[14]-Souitaris V., Zerbinati S., Al-Laham A. Do Entrepreneurship Programmes Raise Entrepreneurial Intentiong of Science and Engineering Students? The Effect of Learning, Inspiration and Resources[J]. Journal of Business Venturing, 2007, 22(4):566-591, 573.

[15] Hu Qingfang, & Yang Cuirong, eds., 40 Designs of Creating Effective Situations. Shanghai: East China Normal University Press, 2018.

[16] Edited by Hu Qingfang, Yang Cuirong, etc., 40 Designs of Creating Effective Situations, Shanghai: East China Normal University Press, 2018: 13.

[17] Cheng Shoumei, He Yanfeng, Liu Yunbo. On the Theoretical Basis of Simulating Situated Teaching Methods [J]. Adult Education, 2011, 31 (07): 43-44

[18] Herrington J., Reeves T., Oliver R., & Woo Y. (2002). Designing authentic activities for Web-based courses. In G. Richards (Ed.), Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2001, (pp. 18–27). Chesapeake, VA: AACE.