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## The International Journal of Management Education

journal homepage: [www.elsevier.com/locate/ijme](http://www.elsevier.com/locate/ijme)

# Addressing progressive educational reforms: Fusing acquisition approaches and participation in Chinese entrepreneurship education

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## ARTICLE INFO

## Keywords:

China  
Entrepreneurship education  
Learning  
Metaphors of learning  
Higher education

## ABSTRACT

Entrepreneurship education and pedagogic reforms advocating the increased use of progressive educational methods have been promoted by the Chinese government. In practice, this has led to a fusion of the more traditional teaching approach and more progressive approaches. This has led to calls for entrepreneurship education to be contextualized within the Chinese context, against the backdrop of the progressive pedagogic reforms. This paper addresses this by exploring how Chinese educators are responding to directives encouraging progressive pedagogic entrepreneurship education, by applying the lens of Sfard's knowledge acquisition and participation-orientation learning metaphors. Interviews were conducted with fifteen educators and analysis of their narratives of practice was undertaken to identify knowledge acquisition and participation-orientation metaphors to elicit the approaches adopted in the classroom. The results indicate that both acquisition and participation approaches are adopted by educators, but in a way that reflects the traditional and cultural heritage that values knowledge. Educators still relied heavily on the transmission-acquisition metaphor, however the encouragement to introduce more progressive practices could be observed in two ways, the constructivist acquisition metaphor, and the participation metaphor. The former appeared more developed and the latter less so, although both are desirable in the light of the education reforms.

## 1. Introduction

The Chinese state has actively encouraged entrepreneurship education in China since 2001, through the issuance of Ministry of Education (MOE) directives and preferential policies (Zhou & Xu, 2012). The purpose of this intervention was to stimulate economic growth to maintain China's competitive advantage as a mass producer of competitively priced goods (Kriz, 2010), and to reduce the developing level of graduate unemployment resulting from the massification of Higher education (HE) (Anderson & Zhang, 2015; Zhou & Xu, 2012). Entrepreneurship education was seen as an economic driver to stimulate the economy, innovation, technology, business development and employment, which would ultimately result in moving up the value chain and ensure a stable society.

The Curriculum Reform for Basic Education (MoE, 2001) sought to encourage progressive educational approaches which promoted active participation, independent enquiry, practical ability, problem-solving skills, and teamwork, and reduce the previous reliance on

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<https://doi.org/10.1016/j.ijme.2022.100748>

Received 29 January 2022; Received in revised form 29 November 2022; Accepted 30 November 2022

Available online 10 December 2022

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the established traditional approach based on passive learning, rote memorization, and repetitive training. Whilst not explicitly stating that it was constructivism that underpinned the new approach, it has since been considered as the dominant underlying philosophy (Tan, 2017).

The promotion of entrepreneurship education was further illustrated through the 'Mass Entrepreneurship and Innovation' initiative (State Council, 2015) which required higher education institutions (HEIs) to increase resources to entrepreneurship education and to provide entrepreneurship education to all undergraduates (Wright, Feng, & Zheng, 2021). This led to the further development of entrepreneurship education courses across numerous specialties, and entrepreneurship education becoming increasingly mainstream (Cui et al., 2021; Wu & Benson, 2017).

Tan (2015) highlighted the impact that Chinese culture has on classroom culture and the expectations of learning, which in turn impacts the introduction of progressive pedagogy; and Liguori et al. (2019) that the introduction of progressive learning approaches into the Chinese context represented a clash between the traditional teacher-centered approach and the new student-centered progressive pedagogy. This has led to some tensions and challenges within an educational system which has had a long tradition of the transfer of knowledge and wisdom from teacher to student in education, often based on instruction, repetition, reinforcement, and testing (Tan, 2015, 2016). Such problems may be rooted in the importation of progressive entrepreneurship education models and methods used abroad, which may not necessarily be amenable to the traditional Chinese context (Lyu et al., 2021). For example, it may take time for Chinese students to adapt to constructivist approaches if they have been used to transmission education (Bell, 2022; Chen & Bennett, 2012). There is a need to go beyond the traditional v progressive divide to understand the Chinese context and Sfard's metaphors can offer a useful lens with which to do so. Sfard's metaphors are a useful tool to understand practices from a research perspective and are better suited to the Chinese context. Sfard (1998) proposed the theory of learning metaphors and posited that learning can be classified predominantly as either acquisition-oriented or participation-oriented and advocated for the inclusion of both types to support effective learning. Importantly, acquisition-orientated learning can be in the form of both transmission and constructivist approaches in this theory. Sfard's (1998) theory of learning metaphors is used in this research as a lens to view how Chinese educators are responding to encouragement to utilize progressive pedagogic approaches in their entrepreneurship education practice. It can provide different insights as it focuses on the learning and less on the educational delivery. Using Sfard's metaphors contrasts with most of the research literature in this field which has largely focused on the teacher-centered and student-centered approaches to entrepreneurship education.

Although several scholars have developed signature pedagogies for entrepreneurship education (e.g., Jones, 2019; Peschl et al., 2021), these frameworks have often been developed from a Western point of view. Calls have been made for entrepreneurship education to be contextualized in the Chinese context (Bell, 2020), and for further research into the development of our understanding of entrepreneurship teaching approaches that are contextualized within the Chinese culture (Lyu et al., 2021). Whilst previous research has explored both the challenges faced by educators (Bell & Liu, 2019) and students (Bell, 2020) to the adoption of progressive education in China, there is a dearth of research exploring the fusion and integration of progressive and traditional approaches to meet government directives to introduce more progressive education practice (Lyu et al., 2021).

This research addresses these calls and gaps by researching, 'How are Chinese educators responding to government encouragement for the utilization of progressive pedagogic entrepreneurship education?' This research question will be considered by applying the lens of Sfard's (1998) knowledge acquisition and participation-orientation learning metaphors to facilitate the identification of different learning styles adopted, through the narratives of a sample of educators practice, to understand how and why entrepreneurship education is conducted in the Chinese classroom. In this way, this research will strengthen our theoretical understanding of the pedagogical choices made within the dynamic cultural context of China, where there is a fusion of teaching methods and approaches (Lyu et al., 2021).

The literature review begins by briefly reviewing traditional and progressive pedagogies and their use in practice, before considering Sfard's (1998) two metaphors of learning. It then moves on to consider entrepreneurship learning in China and the benefits that adopting Sfard's metaphors may have in contextualizing entrepreneurship education within the Chinese context. This is followed by the methodology section which describes the methods adopted in this research, a discussion of the results and their implications, the conclusions of the research, and finally the limitations of the research along with future research opportunities.

## 2. Literature review

### 2.1. Traditional and progressive pedagogy

The traditional teacher-centered behaviorist approach is based on the transmission of objectivist knowledge, and learning is equated with the form, or frequency, of observable performance (Ertmer & Newby, 2013). The process involves linear, efficient, and functional mechanical processes (Löbner, 2006). It seeks to shape the learner's growth and development in a specific direction (Bruner, 1966) and does not seek to encourage criticality or judgement (Dewey, 2013). Repetition, reinforcement, and testing are important teaching elements in this approach. It has however, been argued that the transfer of passive knowledge can result in learners disengaging or becoming merely 'surface learners' who are only required, and able, to repeat the information back (Bennett, 2006). Although common in entrepreneurship education, it is widely considered limited in its usefulness, specifically for the provision of theoretical entrepreneurship knowledge and instruction (Gedeon, 2014). As a result, it is generally only considered suitable for the teaching of the 'about' entrepreneurship, through the provision of factual information about entrepreneurship and the entrepreneurial process (Bell, 2021; Kakouris & Liargovas, 2021). Despite this, education may be delivered passively for expediency and may therefore not be philosophically or pedagogically informed.

In contrast, progressive education is based on constructivism and constructivist approaches to learning. These are rooted in an epistemology of knowledge that is based on the subjective understanding of the individual (Gergen, 2015). Constructivism is a theory of knowledge which is based on the role of the individual in creating their own individual meaning from knowledge based on the individual's context and experience (Mueller & Anderson, 2014). Learning and knowledge construction is a student led, active, and interpretive process, in which the making of meaning is dependent on previous and present knowledge (Merriam et al., 2007). The role of the educator is to guide and enable the students to undertake their learning experience and provide time for reflection. Reflection should be directed, systematic, and focused (Dewey, 1963) and represents a key part in the process to enable students to make sense of what they have experienced, and to further develop their understanding in context (Hägg & Kurczewska, 2016). It has been posited that reflection situated in context can help to support and develop students' creativity (Kakouris, 2021).

Constructivism is based on the active participation of the individual which has resulted in the creation and development of real-life active learning approaches, independent thinking, and the framing of self-questions within the discovery process (Mathews, 2007). Active learning places the learner with some degree of autonomy, at the centre of the process (Hägg & Kurczewska, 2016; Johannisson, 1991) and can involve learning through complex and diverse processes, free from imposed constraints (Hannon, 2005).

Such active learning approaches can involve a range of activities including problem-based learning, inquiry learning, discovery learning and experiential learning. Experiential learning is considered a particularly valuable action-based approach in entrepreneurship education (Fuchs et al., 2008; Honig, 2004). Dewey (1963) argued that learning should not take place in isolation but instead it begins with experience in context.

However, Lackeus et al. (2016) have highlighted the rifts that can be created by the multiple dualisms between perspectives, including that between traditional and progressive education. This in turn can lead on to one-sided perspectives which prevent the integration of the two different perspectives and the subsequent maximization of value that both can offer when used together. Successfully bridging the gap between traditional and progressive education has not always been easy for educators and has led to them seemingly having to navigate between the rigidity of traditional approaches and the vaguer progressive approaches to education (Egan, 2010).

An alternative approach to investigating entrepreneurship education in China, rather than from the traditional/progressive education perspectives, is to approach it through Sfard's metaphors of learning (1998) which focus more on the learning. Indeed, learning in this framework can be based on either transmission or constructivist approaches and is considered as acquisition in both cases. This will now be considered in the next section.

## 2.2. Sfard's metaphors of learning

Sfard's (1998) two metaphor approach moves away from, and challenges, traditional views and distinctions of education i.e., the terms traditional v progressive. The two metaphors in this approach, "that inform our thinking about learning" (Sfard, 1998, p. 5), are described as the knowledge acquisition metaphor (subjective) and the participation metaphor (inter-subjective). The two metaphors allow for the narrating of educational reality and practice, and can be used to inform, reflect on, and review educational practice (Sfard, 1998).

Sfard selected metaphors as an organizing principle because metaphors either explicitly, or implicitly, guide our understanding, and can therefore be used to analyse perspectives that are visible within the discourse of teaching and learning. Importantly, metaphors within the narrative enable the identification of the two types of teaching. They are described below.

The knowledge acquisition metaphor considers knowledge as a property, or possession, of the individual mind, and learning as a process through which information is transferred to the individual. Knowledge can be transmitted through traditional transmission methods but in this scenario, can also be constructed through an individual constructivist process. This means that it encompasses both the cognitive approaches based on transmission and the constructivist approaches which emphasize the development of ideas and the construction of meaning. It represents the acquisition of individual knowledge, and the goal of learning is individual enrichment. The student is a recipient or constructor of knowledge in the process, whilst the educator is the provider, facilitator, or mediator.

The participation metaphor considers knowledge as an aspect of practice, discourse, or from activity, and the focus of this metaphor is on knowing through belonging, participating, and communicating in a community i.e., learning in context. Learning comes from being a participant and becoming a part of the greater whole. In this scenario, the student acts as a legitimate peripheral participant (Lave & Wenger, 1991), or apprentice, whilst the 'educator' acts as a full participant within the community, or the preserver of practice of the discourse and developer of knowledge within the practice. Learning comes through community, practice, identity, and meaning (Wenger, 1998). Knowledge is thus an aspect of cultural practice or situated learning, and is ongoing, and is developed in context (Lave & Wenger, 1991). Situated learning occurs within authentic contexts, culture, and activity. In this case, the focus is not solely on the delivery of knowledge, but instead on how students are prepared for becoming participants in professional practice (in entrepreneurship). For students, learning is rooted in contributing and engaging in the practice of their community through active participation in certain kinds of activities (Wenger, 2018). That is, learning develops from the participation in the network of relations termed the community of practice (Felstead et al., 2005; Lave & Wenger, 1991). Outside the HEI, in apprenticeships or work experience, for example, students can undergo situated cognition through various forms of social constructivism and can develop and transform their norms, values and identities through the practices and social interaction with the community of practice (Hakkarainen, 2009). In the HEI context, this could involve working with experts, working in incubators, taking part in seminars and discussions with others led by those from the community of practice, or working with stakeholders external to the HEI to produce something of value (Lackeus, 2020). This represents moving beyond simply learning by doing, but instead incorporates co-participation with others within the community or network, leading to legitimized social learning (Taylor & Thorpe, 2004; Williams Middleton et al., 2020).

Sfard (1998) highlights that neither metaphor is right or wrong, but instead each offers different perspectives that are required to understand learning. In addition, both are required to foster learning, and both offer advantages, whilst focusing on only one metaphor has drawbacks. In general, since metaphors are descriptive in defining abstract ideas, over time the metaphor can become prescriptive, reducing, or limiting the overall educational experience. This can happen when educators are well accustomed and adjusted to one metaphor in a particular context. They may then seek to use it all the time, to the exclusion of the other. Adopting alternative metaphors can have benefits for both the educator and the students in their learning process. A summary of Sfard’s two metaphors and how they relate to the learning, the goal of learning, the of roles of the student and educator, the concept of knowledge, and knowing, is provided in Table 1.

Understanding the educators’ personal metaphors for teaching can help inform future practice, since they can reflect educators’ conceptions of teaching (Alger, 2009; Saban, 2006) which include the practices and strategies that are adopted within the different contexts of teaching (Virtanen & Lindblom-Ylänne, 2010).

Adopting the two metaphors approach can provide different views on learning. It can inform the intentions of what students need to learn, the aims of studying at the institution, and the conceptualization of the roles of students and educators (Wegner & Nückles, 2015). Culture can influence the value placed on knowledge and the role of the educator in the classroom (Tan, 2016, 2017). Therefore, within societies which acknowledge and value the authority and wisdom of educators, societies may place greater value and emphasis on the transmission of knowledge from the educator to the student to support students’ acquisition of knowledge.

### 2.3. Learning in the traditional Chinese context

Culture impacts both classroom culture, pedagogy, and practice in the Chinese context (Tan, 2016, 2017), including what is delivered, how it is delivered, and who delivers it (Lyu et al., 2021). China has a long educational tradition of passive transmission of objective knowledge between educator and students. This behaviorist approach to education involves the transmission of knowledge by the educator, followed by knowledge reproduction and content mastery by the student (Tan, 2016, 2017). The educator is an authority figure who leads the class, and students rarely challenge the information that is presented to them (Chan, 1999). Discipline and conformity are regarded highly, resulting in a highly structured environment based on one-way communication and with less participation compared to those in the West (Xiao et al., 2016). This approach reflects Confucian tradition in which pupils seek to achieve and match the perfection of their knowledge and skills to their master’s teaching (Tan, 2016). The educator led approach is still considered by some Chinese educators as essential for good teaching (Tan, 2017).

The Chinese government’s directives to adopt progressive approaches has created a tension between the old ways and the new ways. Indeed, Liguori et al. (2019) have argued that progressive education has challenged the values and the culture of the traditional Chinese classroom, and the traditional roles of both instructors and students. Concerns have been expressed over the changes, including the erosion of content mastery, a lack of compatibility between the two approaches, and a misalignment between the constructivism and traditional education assessment systems (Tan, 2016). Sfard’s metaphors can provide a valuable lens in this context because it focuses less on the delivery of education and more on the learning achieved. It is appropriate because the reforms are not seeking wholesale or radical change but rather, changes in learning outcomes and the learning achieved i.e., entrepreneurial outcomes, whilst still valuing traditional educational values. It is an approach that can also shed light on how education prepares students for practice i.e., for being proficient participants in the practice of entrepreneurship.

The application of the two metaphors can therefore more effectively encapsulate, and provide a more appropriate lens, to view the integration of traditional and progressive approaches, in line with the Chinese curricula reforms. Whilst others have suggested more wholesale changes in the delivery of education, this approach may offer an alternative perspective of how the curricula reforms have been integrated in practice, to increase student engagement in practice. Progressive education is an inherently loaded term; it suggests progress and progression. However, viewing the classroom through Sfard’s metaphors questions the assumption that the wide scale introduction of progressive pedagogy is necessarily the most effective approach in the Chinese context. Previous research has highlighted some of the difficulties (and avoidance) in the introduction of progressive education in the Chinese context (e.g., Bell & Liu, 2019; Wright et al., 2021). This research provides a more nuanced understanding of the approaches, and the personal metaphors for learning, that the educators who designed their own courses to introduce more progressive elements into their syllabi, have done in practice. To achieve this, the research will focus on the elements within Sfard’s two learning metaphors, to identify how educators are developing their practice in line with government encouragement for the development and inclusion of progressive practice.

**Table 1**  
A Summary of the Two Metaphors based on Sfard (1998).

Central Tenets	Acquisition Metaphor	Participation Metaphor
The goal of learning	Individual enrichment	Enculturation into a community of practice
Learning	Acquisition of something	Becoming a participant
Student role	Recipient and/or re-constructor	Apprentice or peripheral participant
Educator role	Provider, facilitator, mediator	Expert participant, preserver of practice
Concept of knowledge	Property, commodity, possession	Aspects of practice, discourse, activity
Knowing	Possessing, having	Belonging, participating, communicating

### 3. Methodology

#### 3.1. Data collection

Data was collected from interviews with fifteen educators, equally spread across the municipalities and provinces of Beijing, Guangxi, and Sichuan. These geographical locations are characterized by differing levels of development; however, homogeneity was present in the level, size of institutions and disciplines taught. Additionally, the interview participants were all in charge of developing and delivering an updated entrepreneurship course, which embedded entrepreneurship into their main field of expertise. The courses developed were designed to be aligned with the current curriculum reforms and the educators had the autonomy to develop the courses and pedagogy as they deemed most effective. In-line with government encouragement, the courses sought to develop entrepreneurial and innovative graduates and were embedded across a range of subjects. All the participants were at a similar stage, having developed and completed the initial delivery of their entrepreneurship courses. This provided a good basis for exploring the entrepreneurship teaching practice across the sample. The sample comprised of only Chinese educators, as at the institutions being researched entrepreneurship education was solely delivered by local educators. This is common practice for the institutions selected, who unlike elite tier Chinese universities have limited foreign faculty. The course material and textbooks adopted within the courses were in the local language. All the educators in the sample taught at the undergraduate level and came from a range of departments. [Table 2](#) summarizes the sample.

Prior to the interviews, course outlines, handbooks, and a summary and explanation of the course was shared with the interviewer. This provided the opportunity for the interviewer to have an initial understanding of the course and aid the discussion of the course in the interview. The use and sharing of such documents has been identified as useful to support and aid reflection of pedagogic decisions and improve discussion of pedagogic rationale, which can become clouded by classroom practice ([Nind et al., 2016](#)).

The interviews were relatively unstructured and were focused on the educators discussing their narratives of practice, with questioning and prompting provided by the interviewer when required to keep the conversation going. The interviews provided the opportunity for the educators to present and explain their course and the pedagogy, approaches, and activities contained within. Additional discussion and questions were structured around [Sfard's \(1998\)](#) two metaphors. This helped to provide insight into teaching approaches adopted, and the roles that educators and students play within the teaching and learning process. A summary of the questions and prompts used within the interviews are included in appendix one. The interviews lasted on average 1 h and were recorded and transcribed. The interviews were conducted in Chinese, which was the native language of the educators and the language that the courses being discussed were taught.

The interviews were transcribed and translated into English by two translators who were specialists in business and education. The translations were then reviewed to check conceptual equivalency ([Bhalla & Lin, 1987](#)). The data once transcribed led to a corpus of relevant data of 45,000 words. As the metaphors are a discursive construct, there is a need to carefully listen to and review the educators' narratives ([Sfard, 1998](#)). Therefore, the course documents were used as a discursive aid rather than analyzed directly, as the documents did not include the educator's narratives, rationale, and description of practice. Reviewing the course documents and summaries in advance helped to support deeper conversation, discussion and questioning of the course, teaching, and learning. Additionally, it helped to support the convergence and corroboration of data and was used to ensure and improve the credibility of the data and the results drawn ([Jonsen & Jehn, 2009](#)).

#### 3.2. Data analysis

Analysis of the data was undertaken through a two-stage process. The first stage involved the methodological framework of content analysis, within which the visibility of [Sfard's \(1998\)](#) conceptual metaphors were searched and identified. Such an approach offered a way of treating and constructing interpretations of data in both a deductive and inductive manner ([Chi, 1997](#)). Analysis of the

**Table 2**  
Sample breakdown.

	Location	Department	Coding for in-text Quotes
1	Beijing	Business	B1
2	Beijing	Accounting	B2
3	Beijing	Engineering	B3
4	Beijing	Philosophy	B4
5	Beijing	Languages	B5
6	Guangxi	Business	G1
7	Guangxi	Hospitality	G2
8	Guangxi	Computing	G3
9	Guangxi	Languages	G4
10	Guangxi	Science	G5
11	Sichuan	Business	S1
12	Sichuan	Accounting	S2
13	Sichuan	Hospitality	S3
14	Sichuan	Tourism	S4
15	Sichuan	Automation	S5

educators' approach to teaching was conducted through identifying the metaphors used within their narratives of practice. This is in line with Sfard's (1998) work which proposed metaphors and the language used within educator's narratives of practice as an effective way of analyzing practice, as it can be challenging for educators to effectively communicate their practice. This also has the potential to reduce social desirability bias, as the focus is on what lays beneath and underpins accounts of practice, rather than simple narrative. Within the content analysis stage, key words relating to each metaphor, as outlined by Sfard (1998), were searched for in the educator's narratives, whilst taking into consideration the process and context in which they were spoken. These words can aid the identification of the transmission acquisition-orientated metaphor and include knowledge, concept, conception, misconception, facts, ideas, meaning, schema, representation, material, contents, acquisition, attainment, and from the educator's perspective, transmission, lecture, deliver, convey, and test. Words which can aid the identification of the constructivist acquisition-orientated metaphor include construction, meaning, mentor, guide, scaffold, facilitate, mediate, and jointly nurture. Whilst the words to aid the identification of the participation-oriented metaphor include words such as the noun practice, and communication, taking part, being a part of, being a participant, discourse, community, and doing. In this case, contextuality, situatedness, social mediation, and cultural embeddedness are key to the learning and further help to define the difference between what can be regarded as participation and acquisition e.g., in the case of the participation metaphor and the constructivist-acquisition metaphor. Knowledge in the participation metaphor cannot be separated from context and situatedness.

Identifying the underlying metaphors within the educator's narratives of practice, allows for the identification of teaching approaches adopted in practice. This deductive approach to identifying Sfard's (1998) metaphors, approaches and practice was validated and advocated by Wegner and Nückles (2015).

Once the metaphors had been identified within the transcriptions, the second stage of the data analysis process involved thematic analysis, where the text exhibiting metaphors was coded and analyzed to identify themes as to how educators were responding to government encouragement for the utilization of progressive pedagogic entrepreneurship education, why they adopted this approach and the process they followed. The themes were generated and developed by adopting a data-driven inductive approach. After the identification of the themes, they were named to accurately reflect their content and narrative and the meaning within. The themes were reviewed by the whole research team to ensure coherency and ensure that each theme accurately reflected the meanings in the data (Braun & Clarke, 2006). Finally, the results were reviewed by two researchers, both familiar with entrepreneurship education and the Chinese context, who acted as peer debriefers for the project. This step was taken to aid the interpretation of results beyond the researcher who initially conducted the data analysis, to strengthen the validity of the findings (Creswell, 2014).

## 4. Results

### 4.1. The acquisition metaphor approach to learning

The Sfard (knowledge) acquisition metaphor seeks to achieve the individual enrichment of learners, and learning can be achieved through both the passive transmission of knowledge and the constructivist acquisition of knowledge. How these were utilized by the educators will be considered separately, and a selection of the educators' comments regarding their application are presented.

#### 4.1.1. Knowledge acquisition through passive transmission

Many of the educators stressed the importance of students receiving knowledge to ensure they were adequately grounded in the information they needed. The following quotes highlight the need for students to first receive knowledge from the educators:

*"An essential starting part of any learning is to understand and master the key concepts."* [G4]

*"Students first need to receive and understand knowledge, as before this they cannot engage effectively within entrepreneurial practice."* [S2]

*"The central and most important focus within our entrepreneurship curricula is to ensure that students understand the concept of entrepreneurship. As without this student will struggle to be entrepreneurs."* [G5]

*"The starting point of learning comes from understanding the topic, and this is the first role of the teacher."* [B1]

These comments highlight educators' views on the importance of delivering the basic facts and principles about entrepreneurship first. Teaching 'about' entrepreneurship is regarded generally as the first stage of entrepreneurship education before learning 'for' entrepreneurship by developing the skills required for entrepreneurship and then learning 'through' entrepreneurship by learning through engaging in entrepreneurship. Some comments suggested this was (particularly) important within their own departmental context as students were more comfortable with this approach, such comments included:

*"Students from my discipline (accounting) value knowledge, so we ensure that this is the focus (within our entrepreneurship education), as they are more comfortable with this. Then we can build in practice."* [B2]

*"To ensure that students are comfortable with our entrepreneurship curricula, we start by covering the key concepts and facts as these are essential, before moving into more practical teaching where students can take part in the entrepreneurial process in groups, supported by and working with real entrepreneurial scenarios."* [S1]

Such comments may reflect the long-standing and ingrained traditional approach to teaching, which educators feel students (and perhaps they themselves) may be more comfortable. Tan (2016; 2017) highlighted the impact of culture on classroom culture

including the passive transmission of objectivist knowledge followed by testing and reproduction, to demonstrate content mastery. The view that effective teaching required the inclusion of the transmission of knowledge was highlighted by comments such as:

*“To be effective teachers we ensure that students understand the key concepts of entrepreneurship and innovation.”* [G5]

*“The teacher should enable students to acquire knowledge and then support students to apply this knowledge to be assessed and evaluated.”* [B2]

*“Good teachers enable students to effectively learn and understand the important information about the topic”.* [B5]

Having ensured that students have accumulated enough knowledge and understanding about the concept of entrepreneurship there is evidence that many educators move on to supporting students' acquisition of knowledge through engaging in constructivist learning approaches.

#### 4.1.2. Knowledge acquisition through constructivism

Knowledge acquisition within Sfard's acquisition metaphor can also be achieved through engaging in constructivist approaches in the classroom environment. This allows students to build on the theoretical knowledge they have built up and develop their understanding of entrepreneurship (Bell & Bell, 2020). This was highlighted as valuable as it allowed the application of knowledge and theory previously taught to practical and applied activities. Typical justification when referring to practical and applied activities included:

*“I start by lecturing on the topic and then give students activities where they can use and apply what I have told them”* [S2]

*“Social media and promotion are so important in today's society to launch a business. Most students know and understand social media well, but not for business, so we work with students in partnership to develop their (social media) skills with our subject knowledge.”* [S1]

*“We ensure that students get to apply learning in the classroom through activities.”* [G4]

*“Within our teaching we ensure the application of knowledge through classroom activities and learning from doing.”* [S3]

Knowledge acquisition through constructivist learning was also identified commonly as valuable for developing skills to support entrepreneurship. This was supported by statements such as:

*“As a teacher we cannot simply teach students entrepreneurship and business ideas and skills, so we need to jointly nurture students' ideation and abilities.”* [B1]

*“We get students doing activities in the classroom to develop entrepreneurship skills.”* [B4]

*“Understanding of the key foundations of entrepreneurship is important but developing skills through practice is also required.”* [B1]

*“It is through engagement in an activity you can apply learnt knowledge and develop skills ready for future practice.”* [G4]

*“Entrepreneurship is all about doing so we get students engaging with doing parts of entrepreneurship, like looking for opportunities and designing business models.”* [G3]

Constructivist approaches to knowledge acquisition were commonly identified as taking place in the classroom in a scaffolded manner and could be identified by words such as mentoring, guidance, scaffolding and jointly nurturing. This learning includes practical engagement with activities, it differs from the participation metaphor by commonly taking place in the classroom and is not situated in the real-world context of entrepreneurship. Comments in relation to this approach adopting practical and applied activities in the classroom included:

*“We work with students to participate in practice relating to their being entrepreneurial in their fields. In such practice, we provide mentoring and guidance from our experience, rather than tell students what to do.”* [S5]

*“Our guiding principle is to ensure that students have the knowledge required to support entrepreneurship and to develop practical skills through participation in scaffolded and supported practice, so students can be entrepreneurs when the right opportunity arises in the future.”* [G1]

*“We want to prepare students for entrepreneurship, by providing them with the required knowledge and experience of participating in the entrepreneurial process through scaffolded activities, so that they are ready to find and act on future entrepreneurial opportunities.”* [G5]

*“I deliberately ask my students to complete some challenging tasks and activities, which they can achieve with the right guidance and mentoring, as once they have completed these they will have learnt a lot.”* [B4]

The interviews often illustrated the constructivist acquisition of knowledge, which helps students learn and develop knowledge through constructing knowledge from experience. The inclusion of knowledge acquisition through constructivist learning suggests that many educators are following the guidance of the MoE directive (2001) to introduce more progressive active experiential approaches into the classroom.

It was commonly identified that educators brought together passive transmission and constructivist approaches to learning to support knowledge acquisition.

#### 4.1.3. Knowledge acquisition through bringing together passive transmission and constructivism

Educator comments suggested that they combined transmission-acquisition and constructivist-acquisition within their curricular to further develop and prepare students for entrepreneurship. Comments included:

*“Our goal is to provide students with the essential knowledge and experience of facets of entrepreneurship, as it is through engagement in an activity you can apply learnt knowledge and develop skills ready for future practice.”* [G4]

*“Our classes require students to acquire and learn knowledge first, and then students to apply this through tasks and activities which simulate the process and stages of entrepreneurship.”* [S5]

*“The teacher should be both a purveyor of knowledge and a conductor who facilitates participation and practice, as it is important to provide the basic knowledge, inspire and release creativity.”* [B4]

*“It is our duty to prepare students to be the future entrepreneurs and innovators, as this is what the country requires. To do this they need knowledge and experience of being involved in activities to develop the required skills.”* [G1]

The importance of finding the right balance between transmission-acquisition and constructivist-acquisition approaches was identified as a consistent theme within educators' narratives of practice, and this was summarized by three educators using the following words:

*“Finding the right balance between delivering knowledge and allowing students to develop entrepreneurial skills through practice is essential.”* [B5]

*“A key role of an educator is to find an equilibrium between students' understanding of entrepreneurship and what they must do, and developing skills and expertise through practice.”* [G3]

*“The difference between effective entrepreneurship education and less effective education is in ensuring that students understand the ideas and key concepts and can build on these to be entrepreneurial in practice. This involves supporting students to engage and take part in entrepreneurial activities and tasks. Finding the balance within a course is a challenge”.* [S3]

The educator narratives provided strong evidence that these educators widely utilized both transmission-acquisition and constructivist-acquisition approaches in their practice and acknowledged the importance of using both, even if finding a balance may be challenging.

#### 4.2. The participation metaphor approach to learning

The participation metaphor sees learning being developed and acquired through practice, discourse, and activity that results from belonging, communicating, and participating in a community of practice. This type of learning is highly contextual with the learner acting as a participant and becoming a part of the wider whole (Lave & Wenger, 1991).

The following quotes highlight how HEI's have sought to achieve this goal in practice.

*“To prepare our students for entrepreneurship we connect our students with business related to their major, to work on live case studies and projects collaboratively. We believe this is the best way to develop the practical and vocational skills required to be an entrepreneur in the student's field.”* [G1]

*“An important part of our course is to get students to work and collaborate with industry as enterprising partners. In our major (travel and tourism), we do this by getting students to work with companies to design and present new potential tours in our city.”* [S4]

*“We get students to work with local bakeries and restaurants to develop and launch some products with the mentorship and support of our faculty and partners, as to be a successful entrepreneur in our subject, you need to be not only be able to cook but be creative and market projects.”* [G2]

*“We get former students to bring in examples of the problems they were working on and get students to come up with suggested solutions”* [S5]

These quotes suggest that some HEI's are attempting to link up with local businesses and industries to provide learning through participation to further encourage and develop the entrepreneurial spirit, skills, and behavior of students. In general, this seems to be less developed and varied in nature, presenting different levels of participation and contact, resulting in varying levels of learning through this type of participation activity. However, this approach does echo the concept of learning through entrepreneurship.

In summary, the results suggest that based on this research, that whilst Chinese educators still have a strong belief in, and reliance on transmission-acquisition, the encouragement to introduce more progressive practices can be observed in two ways, constructivist-acquisition, and through participation metaphor. The utilization of the constructivist-acquisition is more widely used and developed in the practice of the sample, whilst the participation metaphor is less widely used in the practice of the sample, although both are desirable in the light of educational reforms encouraging the inclusion of more progressive pedagogy.

## 5. Discussion

The research found that educators were commonly applying progressive pedagogy in the form of constructivist-acquisition



alongside the more traditional transmission-acquisition approaches in the narratives of their practice. The balance between the transmission-acquisition and constructivist-acquisition approaches was stressed as being important although potentially challenging. Constructivist-acquisition was considered important as it allowed students to develop skills and apply their learning. However, whilst all the educators in the sample utilized transmission-acquisition and to varying degrees some form of constructivist-acquisition, there was variation in the balance and emphasis.

Whilst some of the educators utilized participation approaches, they were less common and dependent on the subject area, student level and industry relationships. The adoption of different balances could be attributed to localized factors, including the level and experience of the students and the preferences of the educators. This is underpinned by [Morselli \(2015\)](#) who suggested that the acquisition and participation metaphors might be more applicable to different settings, with acquisition approaches being more suitable at lower educational levels. Therefore, where educators perceive their students are not as advanced, lacking experience, or having limited workplace engagement, the educators might decide to emphasize acquisition approaches. In addition, a range of external contextual factors including political, cultural, and social contexts exist which can also influence entrepreneurship education ([Galvao et al., 2020](#)). These factors are outside the educator's control, and educators are commonly required to adhere to, or adapt, to specific factors, these include in the case of this paper progressive pedagogical reforms and government directives. Additionally, it has been highlighted that micro institutional and cohort level factors also exist and it is the job of the educator to adapt educational design and delivery to meet the individual institutional and cohort level needs and requirements ([Thomassen et al., 2020](#)). This could explain why whilst there was broad agreement in the fusing and importance of balancing acquisition and participation-oriented approaches, there remained variability in their emphasis within the sample.

The Chinese educators had a strong belief in delivering knowledge first, before introducing more constructivist-acquisition approaches i.e., a largely sequential process. Knowledge needed to be taught, or delivered, by the educators who saw the students as apprentices to entrepreneurship. This relationship echoed the long-standing tradition of the master-pupil relationship within Confucian tradition and the emphasis on transmission of knowledge seen within Chinese education ([Tan, 2016](#)). This aligns with the suggestion that learners should have a grounding in the underpinning knowledge and theory, which they will be apply through entrepreneurial activities and experience ([Bell & Bell, 2020](#)).

Educators, however, could be considered variously as 'purveyors', 'providers', 'conductors', enablers, and facilitators, and strongly supported the value of learning through experience to develop entrepreneurial skills and an entrepreneurial mindset. The educators, whilst valuing acquisition and the cultural educational legacy highly, do support the constructivist-acquisition of knowledge in the educational setting, and in some cases through situated learning (participation metaphor) by either taking students outside of the classroom or by bringing industry and authentic activities into the classroom, and the research points to both constructivist-acquisition of knowledge and participation being added to the curricula being developed and adopted.

Educators talked of the value in constructivist-acquisition through encouraging participation in activities and tasks in the classroom, supported by guidance, scaffolding and mentoring, as these encouraged nurturing ideas and developing skills. Whilst those involved in teaching through the participation metaphor highlighted collaboration with local businesses and industry partners as being useful for helping students to learn through active participation. Participation alongside others, engagement in the process to develop skills, and learning the practices of the business within the industry, helps to develop their identity as an entrepreneur ([Bell et al., 2019](#)).

Approaching Chinese entrepreneurship education using Sfard's two metaphors offers several advantages. Firstly, the goal of the Chinese state reforms was to encourage the use of active student engagement and participation, independent enquiry, practical ability, problem-solving skills, and teamwork, and reduce the overreliance on the long-established traditional transmission approaches based on passive learning, rote memorization, and repetitive training. As such, this represented a gradual change rather than a wholesale change. In short, to introduce constructivist approaches whilst still valuing the culture and traditional educational values. The development and inclusion of constructivist-acquisition approaches in entrepreneurship curricula has helped to accomplish this. Sfard's metaphors could be seen to reflect and follow in practice the classic distinctions between education 'about', 'for', 'through' and 'in' enterprise ([Pittaway & Edwards, 2012](#)). Transmission-acquisition helps to provide essential knowledge about entrepreneurship, constructivist-acquisition allows students to construct the knowledge required for entrepreneurship. Whilst the participation metaphor supports learning through or in enterprise, depending on the context of the learning.

To effectively assess students practical and problem-solving skills requires authentic tasks, which develop and enables students to demonstrate transferable skills and the ability to deal with contextual factors and ambiguity ([Gijbels et al., 2005](#); [Morselli & Gorenc, 2022](#)). Such changes in learning and assessment can be challenging for educators and institutional leadership due to legitimacy concerns about moving away from more objective assessment, in the form of tests and exams ([Bell & Liu, 2019](#)). Such changes require educators to navigate transitions from rigid and objective traditional approaches to vaguer progressive approaches to education, an adjustment which has been identified as challenging for educators ([Egan, 2010](#)). Additionally, students are commonly wary and may be uncomfortable when facing new and different pedagogic processes and ways of teaching ([Neergaard & Christensen, 2017](#)). Such changes have the potential to be particularly marked in the Chinese classroom, where education has traditionally involved passive transmission of information. Therefore, the progressive v traditional debate has created tensions, both conceptually and in operation, which has seemingly adversely impacted the integration of the two approaches. Adopting the two metaphors approach allows the focus to be on the learning that is achieved as opposed to the specific 'method' of delivery i.e., traditional v progressive approaches. In this way, it offers an alternative approach to the traditional v progressive approach which is adopted predominantly in current literature. It focuses less on the delivery method used and the application, and more on the learning achieved. This approach adds nuance to cultural and traditional legacy and how educators address the curriculum reforms within the Chinese context. Pedagogies have previously been produced for entrepreneurship education from a Western point of view (e.g., [Jones, 2019](#); [Peschl et al., 2021](#)) but these

are not necessarily transferable into different cultures and contexts. Indeed, calls have been made for education research into the contextualization of education specifically within the Chinese context and culture (Bell, 2020; Lyu et al., 2021). This approach adds that nuance into both the 'how' and 'why' Chinese educators create curricula and teach students the way they do in practice.

By adopting this approach, this research challenges the view that Chinese institutions are necessarily unable or failing to integrate the progressive pedagogic reforms, as they are failing to adopt more constructivist approaches, as proposed by some scholars (e.g., Wright et al., 2021). The institutions in this research are finding ways to increase participation without completely crossing the divide from traditional to progressive teaching, as the educators are still ensuring a balance between the acquisition of knowledge and practice. Indeed, the concept of "crossing the divide and the 'rift of dualisms' (Lackeus et al., 2016) may not be a particularly useful concept in the Chinese context, as the reforms and developments were purposely incremental and were intended to respect the educational cultural legacy and traditional value placed on knowledge. This research does not necessarily negate the findings and criticisms of previous research into the integration of more progressive education into entrepreneurship education in China, but instead provides a more sympathetic approach to understanding how and why entrepreneurship education may be applied in the way that it is, in practice.

## 6. Conclusion

Entrepreneurship education has been promoted in China through progressive educational and pedagogic reforms and directives. This has led to some borrowing of international practice and a fusion of pedagogic methods and practices adopted in the Chinese entrepreneurship education classroom. This has led to calls within the literature to contextualize entrepreneurship education within China to further our understanding of its development (Bell, 2020; Lyu et al., 2021). As viewed through a Western progressive v traditional education lens, the fusion of the two approaches can be seen to have produced tensions and a lack of adherence (Li et al., 2016; Lyu et al., 2021; Wright et al., 2021). Within this research Sfard's (1998) two metaphor theory of learning was adopted to provide an alternative lens focused on learning, to gain a deeper understanding of how entrepreneurship education is delivered, specifically within the Chinese context. By adopting this lens, this research explored how Chinese educators are responding to government encouragement for progressive entrepreneurship education.

This research has highlighted the ways in which educators have adapted their curricula to meet the new entrepreneurship curricula requirements in China. The research found that the educators used metaphors relating to knowledge acquisition both in the form of transmission-acquisition and constructivist-acquisition, in their narratives of practice. Although, there was variation in the emphasis on each approach, suggesting that the type of knowledge delivered within entrepreneurship education could be considered as a continuum rather than a categorization. The participation metaphor was seen in a limited number of cases, where educators were directly linking with industry, to support students to participate in practice in the context of industry. Sfard's lens helps to more accurately reflect the nuance involved in the process of achieving Chinese progressive educational reforms, whilst valuing the Chinese educational legacy.

The research found an emphasis on constructivist-acquisition, but only after a solid grounding in the transmission of basic knowledge that educators feel the students require before moving on. This grounding is educator led and reflects the traditional approach to education in China. In this way, educators supported the introduction of learning through constructing understanding through experience, whilst at the same time continuing to value the traditional focus on knowledge acquisition, embedded in the social and cultural educational legacy. Therefore, signature pedagogies which have been developed in the Western context, may be less appropriate in other contexts. A limited number of educators incorporated both acquisition and participation metaphors although the latter were less prevalent and more varied on a local basis, and less defined.

The findings of this research can inform educators and policy makers, who have sought to open entrepreneurship education to a broader range of students (Dakung et al., 2022), as to how they can approach fusing acquisition and participation approaches in environments and contexts where there is a transition to more practical entrepreneurship education. It also offers a way to consider the transition in the light of the specific prevailing context and culture. Achieving an initial fusion of transmission-acquisition and constructivist-acquisition might offer a useful starting point to build on and enable the development of entrepreneurship education by building the acceptance and legitimacy of new approaches in China. Following on from this it might be more achievable to further introduce and develop the participation metaphors by developing links with business and industry.

This research strengthens our theoretical understanding of the pedagogical choices that are made by educators within the dynamic cultural context of China, where there is a fusion of teaching methods and approaches (Lyu et al., 2021). The research also provides insight for policy makers and other educators, as to how context influences the delivery of (entrepreneurship) education, and how educators modify and blend their approaches to achieve their, and their students aims and objectives. At an educator and administrator level the research highlights the need to consider how acquisition and participation approaches can be achieved and provides guidance as to how these approaches have been brought together by educators going through a journey of developing their curricula to meet progressive educational reforms.

Using Sfard's two metaphor approach proved a useful lens to approach this research as it provided information on both the views, and what educators are doing and striving to achieve, in the Chinese education context. This is particularly important when there appears to be evidence of a lack of buy in and disagreements over entrepreneurship education models (Cui & Bell, 2022; Mei & Symaco, 2022; Wright et al., 2021). Whilst separating the two metaphors can be challenging, this paper offers one of the first, if not the first, empirical application of Sfard's metaphors of learning within entrepreneurship education. In line with Sfard's theory, this work focuses on learning metaphors within educator's narratives of practice, rather than focusing on their actual practice. Future research could further our understanding of practice by considering the utilization of acquisition and participation-oriented approaches in actual

practice. Future work could also build on this exploratory research by furthering our understanding of effective balances between acquisition and orientation approaches and what affects and influences this balance.

This exploratory research was based on interviews with fifteen entrepreneurship educators teaching in HEIs within three provinces in China. The size of this sample is the main limitation of this research and further research is required to confirm these initial findings across a larger and wider context. It should be noted that not all educators may have the same levels of commitment, or even the drive, to introduce new practices such as the development and integration of practical experiential learning and the development of the support and activities described within the participation metaphor. Similarly, not all educators may have had the same training and guidance in the development of their curricula. Further research will be valuable in establishing this. It might be expected that similar research approaches may be useful in other non-Western contexts in which contextual factors, such as culture and tradition, may play a part in the delivery of education. Future research can also help to establish this.

#### Author statement

Robin Bell Conceptualization; Formal analysis; Investigation; Methodology; Project administration; Resources; Visualization; Roles/Writing - original draft.

Jun Cui Investigation; Validation; Methodology; Data Curation; Writing - review.

#### Data availability

The authors do not have permission to share data.

#### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijme.2022.100748>.

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