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# Beyond the paradigm of literacy – Developing a research agenda in entrepreneurship

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## ABSTRACT

Illiteracy, the lack of ability to read and write, affects how people engage with entrepreneurship and the possible outcomes of entrepreneurial actions. Yet entrepreneurship as a discipline has paid little direct attention to illiterate entrepreneurs. We offer a glimpse of what recognition of illiteracy in entrepreneurship research might enable, and how it can challenge researchers to reach beyond our existing knowledge horizons to develop a future of impactful, integrative, and inclusive entrepreneurship scholarship.

## 1. Introduction

Illiteracy affects roughly 773 million people across countries,<sup>2</sup> who struggle to comprehend basic text, incurring a cost of USD \$1.19 trillion to the global economy (Cree et al., 2023; Domingue et al., 2021; UNESCO, 2021). Notably, a significant portion of these illiterate individuals are entrepreneurs, particularly in developing and emerging economies (e.g., PNADC 2021; Lenz and Brito, 2022.) Without the ability to read and write, these entrepreneurs face barriers in accessing critical information, communicating with stakeholders, and navigating bureaucratic processes, all of which impact their business outcomes (Anigbogu and Regis-Oniioha, 2011; Omri et al., 2015).

To date, the field of entrepreneurship has paid little attention to illiterate entrepreneurs, primarily developing under the paradigm of literacy.<sup>3</sup> This approach may have made implicit assumptions stronger that would not hold true in the presence of illiteracy (Kuhn, 2012). When predicting entrepreneurial outcomes, entrepreneurship researchers generally control for the level of education of the entrepreneur. Here, the underlying assumption is that education and accumulated human capital are a productive resource for entrepreneurial activities and allow certain tasks to be performed successfully. Illiteracy, when considered as part of human capital, may be linked to a reduced ability to perform tasks and a decrease in performance.

However, such an assumption may oversimplify how illiteracy plays out for entrepreneurial endeavors. Illiteracy may result in the

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<sup>2</sup> Upper middle-income countries record a population literacy average of 96%, low- and middle-income countries of 85%, lower middle countries of 76% and low-income countries of 61% (World Bank Group, 2022).

<sup>3</sup> Exceptions are a few articles that address illiteracy as a control variable, an educational subcategory in quantitative studies, or as a methodological consideration specific to the study context without in-depth discussions of its implications. For instance, Tobias et al. (2013) used symbolic response options to accommodate illiterate participants among Rwandan rural entrepreneurs in the coffee sector. Bullough et al. (2014) trained survey collectors to orally administer surveys to illiterate Afghan entrepreneurs. Additionally, Sarkar et al. (2018) included illiteracy within a continuous education variable to assess inequalities in existing human capital and their impact on entrepreneurial activity.

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ability to do tasks differently, for example practical intelligence becomes more important than traditional literacy by enabling problem-solving and business management (Sternberg, 2004). Illiterate entrepreneurs may also develop alternative skills and use tools, such as voice recognition software, to circumvent these limitations. By developing entrepreneurship theory solely based on the assumption of literacy, scholars fail to account for the broader scope of literacy which extends beyond basic reading and writing skills. It encompasses critical thinking and the ability to challenge existing social practices and systems (Freire, 1970). Literacy practices involve decoding and encoding, critical tools that empower individuals to comprehend and actively interact with their environment, thereby enhancing their capacity to influence it (Lonsdale and McCurry, 2004). For entrepreneurs, literacy is not only relevant to the ability to recognize opportunities and carry out entrepreneurial activities, but it also relates to their ability to participate in the identification of economic, social, and environmental issues that can be improved through entrepreneurship, thus making illiterate entrepreneurs an important community of inquiry to enhance entrepreneurship theory (Shepherd, 2015).

As a result, we suggest augmenting the literacy paradigm with the complementary perspective of illiteracy to expand the legitimacy and relevance of the field. Furthermore, from a practical perspective, we would expect that a better understanding of available means and the resulting patterns in the way entrepreneurship is shaped by illiteracy and carried out by illiterate and literate entrepreneurs may lead to better service offers, entrepreneurship training, and support programs that have previously seen mixed results (McKenzie and Woodruff, 2014). This, in turn, may help to understand how to engage with entrepreneurship as a solution for poverty alleviation and inequality (Sutter et al., 2019; Bruton et al., 2021). Therefore, in this paper we highlight how the complementary perspective of illiteracy leads to a fruitful research agenda that can help advance the relevance of entrepreneurship research.

## 2. The literacy integration in entrepreneurship

We propose that literacy, which refers to the ability to read and write, can augment theories in the entrepreneurship literature through at least three lenses: a functional human capital perspective, a situational perspective of literacy as a property of the environment, and an embedded perspective of literacy as a way to generate new ways of living and reshape circumstances that condition entrepreneurial action (Freire, 1970; Street, 1984) (Fig. 1).

### 2.1. The functional perspective of literacy for entrepreneurship

We define the functional perspective of literacy as the ability to engage through literacy in the core aspects of social and economic life, which affects the ability of an entrepreneur to understand opportunities, register formally, read contracts, or annotate thoughts about a business plan.

Literacy as the acquisition of the skill of reading and writing can be understood as a form of human capital as something acquired in formal education or as work experience (Martin et al., 2013). Low levels of formal education or experience are generally viewed as a weakness, impacting the type of venture created (Dencker et al., 2021), associated with negative consequences of the venture (Unger et al., 2011; Brito et al., 2022), and are regarded as something that can be 'fixed' with more training and exposure to experience (Martin et al., 2013). In this literature, literacy can be considered as a part of generic human capital.

Entrepreneurship scholars have adopted two approaches to investigate human capital: economic theorizing (see, e.g., Rauch and Rijdsdijk, 2013) and the skills/abilities approach linked with the resource-based view (see, e.g., Cooper et al., 1994; Gruber et al., 2012). The first set of studies builds on the premise that people attempt to receive compensation for their investments in human capital (e.g., studying for a degree) and try to maximize the economic benefits of these investments over their lifetime (Becker, 1964). For example, research has shown that entrepreneurs with higher education levels manage larger firms after the first five years, providing support to the notion that entrepreneurs seek to maximize the return on their investment in human capital by growing their firms (Rauch and Rijdsdijk, 2013). However, the assumption that a low level of investment in education necessarily results in a lack of growth motivation among illiterate entrepreneurs may oversimplify their aspirations and determination, especially since our knowledge regarding motivating factors for illiterate entrepreneurs remains limited. How do illiterate entrepreneurs measure the success of their venture? Do their investments look different than those of literate entrepreneurs?

Literacy can be conceptualised as the outcome of formal education, and illiterates may be considered as the lowest end of the educational continuum and may be assumed to comprise those individuals who have no or very little education (Lang, 1937). Scholars in the field of entrepreneurship who adopt a resource-based view of human capital consider education to be a creator of skills and abilities. As an example, van Gelderen et al. (2005) stated that 'higher educated seem to have advantage (*when starting a business*), but also have more alternative opportunities (p.369)'.<sup>4</sup> Therefore, it seems that by including education in the analysis, researchers try to control for some unobservable skills or contacts, such as unobserved ability, productivity, and/or networks that can affect if, when, where, and how people become entrepreneurs (e.g., Davidsson and Honig, 2003). These unobservable skills and abilities have also been used to predict venture-level outcomes such as performance and survival. An early paper by Cooper et al. (1994) on human capital and financial capital as predictors of new venture performance includes education, gender, and race, 'which may reflect the extent to which the entrepreneur has had the opportunity to develop relevant skills and contacts (p.371)'. Similarly, Unger et al. (2011) concluded that 'owners with high human capital should be more effective and efficient in running their business than owners with lower human capital (p.344)'.<sup>4</sup>

What is common in these studies is the assumption of a positive relationship of education, a core aspect of generic human capital, with the entrepreneurial outcome of interest. Therefore, illiteracy associated with a low level of education may be viewed as a

<sup>4</sup> Van Gelderen et al. (2005), however, did not find that education level would be directly associated with startup success.

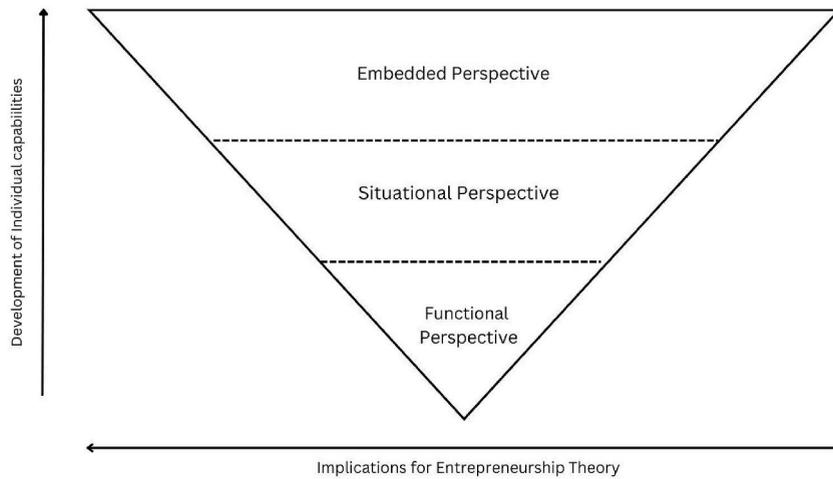


Fig. 1. Implications of literacy perspectives for theory development in entrepreneurship.

hindrance that will prevent potential entrepreneurs from becoming entrepreneurs, limits the range of entrepreneurial opportunities, or poses challenges to carrying out entrepreneurial activities. Revisiting the boundary condition of illiteracy under which these concepts have evolved may provide a foundation for understanding how the entrepreneurial process unfolds among illiterate entrepreneurs and ways through which these entrepreneurs might be better supported. We would expect a difference in comparison to the process of literate entrepreneurs, as many of the activities that an entrepreneur performs include information acquisition and assimilation, which are mediated by cognitive processes for which literacy plays a major role (Ardila et al., 2010). To that extent, the absorptive capacity of illiterate entrepreneurs may be diminished or at least different from that of their literate counterparts (Zahra and George, 2002), with implications on which opportunities are exploited and if an advantage in the market place is sustained (Delmar and Shane, 2003). A low level of human capital combined with an absence of institutional support has been proposed to lead entrepreneurs to pursue venture ideas similar to those around them (replication logic), in similar ways in which they are run by others (imitation logic) (Dencker et al., 2021). However, we do not know how illiterate nascent entrepreneurs evaluate the merits of the opportunities they recognize – in other words, how do they make cognitive judgements derived from the vision of the opportunity of the entrepreneur ('what might be')?

We may also ask whether viewing illiteracy as a hindrance is the right approach. Hamilton (2000) distinguished between dominant literacies acquired through formal learning and institutions, while vernacular literacies are self-generated literacies associated with informal learning and everyday context. Gruber et al. (2012) acknowledged, building on Sternberg (2004), that entrepreneurs may acquire relevant skills and abilities outside formal education. "Individuals with lower levels of formal education yet on-the-job training may process more applied knowledge and more practical intelligence (Sternberg, 2004) and may be more interested in solving practical problems" (quoted in Gruber et al., 2012). Sternberg (2004) introduced the concept of 'practical intelligence' of entrepreneurs, the ability of entrepreneurs to solve their daily problems and run their businesses successfully. What is the consequence of this disparity and bias in the study of illiterate entrepreneurs? Scholars do not capture the skills and abilities developed outside of formal schooling (aka vernacular literacies). How does practical intelligence appear in the day-to-day actions of entrepreneurs? How are the tasks that require reading and writing performed? Illiterate entrepreneurs may possibly develop creative and novel ways to perform tasks or completely replace tasks. For example, new technologies, such as voice recognition software or audiovisual aids, could help streamline processes that would otherwise require written communication. Similarly, visual cues could serve as an anchor for the development of entrepreneurial ideas. To what extent do illiterate entrepreneurs find alternative approaches that bypass the need for literacy? In conclusion, the integration of illiteracy into our theorizing of human capital and entrepreneurial action would involve addressing research questions related to the abilities and skills of the illiterate entrepreneurs (Tables 1 and 2).

## 2.2. The situational perspective of literacy for entrepreneurship

We define the situational perspective of literacy as the context that conditions the occurrence and dynamic of illiteracy in entrepreneurial action. Context is important to understand when, how, and why entrepreneurial activity occurs and who becomes involved (Welter, 2011). One way to think about the context is to consider it as 'situational opportunities and constraints that affect the occurrence and meaning of organizational behavior as well as functional relationships between variables' (Johns, 2006, p. 386, quoted in Baker and Welter (2020)). This perspective is relevant for illiterate entrepreneurs, as it may depend on the macro, community, neighborhood, and family situation what illiteracy means for the entrepreneurial process.

Widespread illiteracy within a country can, for example, remain a serious obstacle in the development of entrepreneurship, particularly for disadvantaged subgroups such as rural women. At the same time, the likelihood of encountering illiteracy is higher in poverty-deprived environments, as families often rely on the labor of their children to contribute to household income. Thus, even if educational opportunities exist, children may not be able to access them if they are forced to drop out of school at an early age to help support their families (Sutter et al., 2023). In these cases, illiteracy is likely to add to structures of inequality already encountered in the

society and to generate an additional barrier for economic development (Bruton et al., 2021). However, widespread literacy may also give more legitimacy to illiterate entrepreneurs. In geographic areas where there are more illiterate entrepreneurs, they may face less barriers to establish venture stability and growth. How does the prevalence of illiteracy at the regional and macrolevel interact with individual and firm-level processes and outcomes?

Illiteracy at the community, neighborhood and family level may also influence the entrepreneurial process of illiterate entrepreneurs. Illiterate individuals may not all experience the same disadvantage, particularly if they have access to others who are literate (Basu and Foster, 1998). For example, having a literate member in the household can mean a substantial difference for each illiterate member in accessing information and accomplishing tasks that require literacy (Basu and Foster, 1998, p. 1734; Sirmon and Hitt, 2003). A spouse may achieve greater success in their small businesses, for example, by leveraging their spouses' literacy skills, leading to better management, higher profits, better returns, and improved prospects for poverty alleviation (Iversen and Palmer-Jones, 2008). However, it might make a difference on the family level if the literate household member is a woman or a man. In the context of Bangladesh, Maddox (2007) found, for example, that women who are literate may be keen to teach the illiterate husband, but a literate husband may be less inclined to share literacy skills with his wife. An illiterate woman entrepreneur may be able to access literacy mediation from the female family members (daughters) or other women in the community, but perhaps less likely from male family members (husband or son) or male members of the community. This would suggest that by incorporating illiteracy into studies of gender and entrepreneurship, we could discover novel dynamics at play in the family and households. More generally, this also raises important questions about the family and community impact on entrepreneurship, such as when, how, and from whom do illiterate entrepreneurs seek and receive advice for launching and running the venture? More generally, differences in literacy levels within a family can lead to conflict if some family members face challenges in contributing to the business effectively or making informed decisions, with consequences for shared vision and business performance (Neff, 2015). How is a shared vision achieved in situations where some members of the family business are illiterate?

Illiteracy at the community or family level can also lead to anxiety if one has the feeling of 'falling behind'. Arguable, as the higher the differences in literacy levels between the illiterate entrepreneur and the others around him, the greater the tension to resolve them. Therefore, what are the psychological barriers to the business success of illiterate entrepreneurs and how are they overcome? And how do psychological barriers play out for the acquisition of the necessary skills? As illiterate individuals tend to pass on negative perceptions of literacy to their children, illiteracy is often associated with a multigenerational cycle across generations (UNESCO, 2015; Garrity and Martin, 2018), which may condition when and how entrepreneurs pursue the necessary human capital, for example. Within family businesses, how do illiterate family business members cope with anxiety that may arise from being unable to follow certain decision-making by other family members?

Recognizing that literacy is situational, the interaction with entrepreneurship raises many research questions within and between levels of analysis (Table 1).

### 2.3. The embedded perspective of literacy for entrepreneurship

In the embedded perspective of literacy, literacy goes beyond the notion of human capital or as something encountered in the situation that conditions entrepreneurship, as discussed in the previous sections. Instead, literacy is considered a process of 'conscientisation', which involves the acquisition of skills and understanding that allow individuals to criticize and challenge the unequal political, social, cultural, and economic contexts that govern their lives (Freire, 1970). The value of literacy then becomes reflected in the capacity of people to acquire and adapt it to produce dramatically different forms and practices of living, thus enabling the generation of new contexts (Maddox, 2007; Street, 1984). This is relevant for illiterate entrepreneurs for several reasons. First, an

**Table 1**  
Research questions beyond the paradigm of literacy.

Literacy perspective	Research questions
<i>Functional perspective</i>	<ul style="list-style-type: none"> <li>- What are the skills and abilities that illiterate entrepreneurs employ to create and manage entrepreneurial ventures and how are these different from the skills sets of literate entrepreneurs? How is illiteracy related to a variety of skills and abilities?</li> <li>- When, where, and how do the unique experiences of illiterate entrepreneurs turn into entrepreneurial capital?</li> <li>- How does illiteracy interact with different forms of capital in the context of entrepreneurial activity? How is illiteracy related to the accumulation and destruction of forms of capital before and during entrepreneurial activities?</li> <li>- When, where, and how does illiteracy as a core aspect of human capital enable and hinder entrepreneurial activity and venture performance?</li> <li>- How do we design effective training programs to enhance the skills and abilities of illiterate entrepreneurs to enterprise?</li> </ul>
<i>Situational perspective</i>	<ul style="list-style-type: none"> <li>- How does illiteracy at the community, neighborhood and family affect entrepreneurial experiences and activities?</li> <li>- How do the literacy needs of entrepreneurs change over the course of entrepreneurial activities? What are the contextual factors that influence whether and how illiteracy can be mediated?</li> <li>- What is the role of the family in mediating illiteracy? What is the effect of illiteracy on family businesses?</li> <li>- How do literacy practices run in the family? How does it affect intergenerational entrepreneurial practices?</li> <li>- What are the policies and programs that best support the development of literacy practices of entrepreneurs and entrepreneurial families?</li> </ul>
<i>Embedded perspective</i>	<ul style="list-style-type: none"> <li>- How do illiterate entrepreneurs form meaning of the world and its opportunities?</li> <li>- What role does lived experience play in contrast to reflective and abstract thinking practices in the entrepreneurial process?</li> <li>- What matters to illiterate entrepreneurs in terms of the actions and societal changes pursued and turned into entrepreneurial actions?</li> <li>- How are literacy practices influencing the opportunity creation process of illiterate entrepreneurs?</li> <li>- How do power relationships within society play out in the dynamics of illiterate entrepreneurs and their aspirations?</li> </ul>

**Table 2**  
Themes, research question, and invitation of entrepreneurship theories to be revisited.

Theme	Research questions deriving from literacy perspectives for entrepreneurship research	Examples of theoretical approaches/concepts adopted in the field of entrepreneurship research to revisit
New venture ideas	How do illiterate entrepreneurs come up with new venture ideas? Are there differences between illiterate and literate entrepreneurs with respect to how new external information is recognized and valued, assimilated into new knowledge, and commercialized? What is the role of visual clues?	Pattern recognition ( <a href="#">Baron, 2006</a> )
Opportunity evaluation	How do illiterate entrepreneurs evaluate the merits of the opportunities they recognize and make cognitive judgments derived from the entrepreneur's vision of the opportunity ('what might be')? What kind of prototypes and mental models are applied? What are the goals and beliefs of illiterate entrepreneurs, and (if different from literate entrepreneurs) how do they impact how situations are evaluated and viewed as an entrepreneurial opportunity that represents a personally desirable and feasible action path?	Mental models and prototypes ( <a href="#">Dimov, 2010</a> ) Integration of beliefs and goals into mental representation ( <a href="#">Wood and McKelvie, 2015</a> )
Acting on opportunities - gestation	How do illiterate entrepreneurs act on opportunities deemed worth pursuing and launching new ventures? What does the gestation phase look like? How long is the gestation phase? What gestation activities are performed and what is the relative importance of the activities.	New venture creation process (recent review by <a href="#">Davidsson and Gruenhagen, 2021</a> )
Resources: Acquisition and allocation	How do illiterate nascent entrepreneurs mobilize the necessary resources to launch and run new ventures? Given the numerous interactions and transactions with various stakeholders in an entrepreneurial process, are illiterate entrepreneurs skilled in understanding and anticipating another's action?	Empathic accuracy ( <a href="#">McMullen, 2015</a> )
Advice and social support	When, how and from whom do illiterate entrepreneurs seek and receive advice to launch and run the venture? For example, literacy sharing offers suggestions on how illiterate entrepreneurs can benefit from the support of family and community members.	Peer advice ( <a href="#">Kuhn and Galloway, 2015</a> )
Daily process activities	How do entrepreneurs use literacy in their day-to-day actions? How are the tasks that require reading and writing performed? The literacy sharing suggests that illiterate entrepreneurs may rely on members of the family and community to perform tasks that require reading and writing ability. Do illiterate entrepreneurs adopt alternative/creative/novel/different ways to carrying out these tasks?	Entrepreneur's everyday behavior ( <a href="#">Mueller et al., 2012</a> ) Everyday social support processes ( <a href="#">Cogan et al., 2022</a> )
Wellbeing	Is engaging in entrepreneurial activity a danger or a promotion of self-esteem and well-being for illiterate entrepreneurs? For example, what are the consequences for well-being if illiterate entrepreneurs rely consistently on others to carry out entrepreneurial activities?	Mental wellbeing ( <a href="#">Stephan, 2018</a> ; <a href="#">Stephan et al., 2022</a> )
Resilience	Illiterate entrepreneurs may come from poor, even dangerous conditions. Over time and through their lived experiences of illiteracy, they may have developed resiliency. How does resilience transfer into the context of their entrepreneurial activities? How do they cope with the challenges of running a business and the possibility of failure?	Resilient enterprises ( <a href="#">Branzei and Abdelnour, 2010</a> ) Resilient entrepreneurs (recent review by <a href="#">Ahmed et al. (2022)</a> )

illiterate entrepreneur who starts a venture would do so out of a social, political, and economic context that had made illiteracy possible. Knowledge, under this perspective, would build up through the comprehension of the world around the entrepreneur, which precedes the way this world is read ([Freire and Macedo, 1987](#)). A sensing learning style, for example, would allow the illiterate entrepreneur to build knowledge through sights, sounds, and physical sensation ([Wang and Chugh, 2014](#)). However, how these external contacts are perceived will be influenced by practices of living, which are arguably different between literate and illiterate entrepreneurs and societies in which illiteracy is more or less present ([Maddox, 2007](#); [Street, 1984](#)). Are illiterate entrepreneurs through entrepreneurial actions capable of enabling the generation of new contexts? Or are their entrepreneurial actions rooted in a more mimicking style of entrepreneurship, that does not allow producing dramatically different forms and practices of living?

It is a culturally sensitive view of literacy practices that posits that if we were to view literacy as a social practice, not simply a technical and neutral skill, then it becomes apparent that literacy is embedded in socially constructed epistemological principles ([Freire, 1970, 2000](#); [Street, 1984](#)). From this perspective, understanding the impact of illiteracy on the outcome of individual entrepreneurial action involves the implicated worldview from which it arises. This embedded perspective of literacy connects to a social constructionist school of thought that allows us to understand the entrepreneurial process aligned with the nature of development, in which opportunities emerge out of an illiterate entrepreneur's ability to learn, grow, and change ([Cope 2005](#); [Gartner et al., 2003](#)). How is the ability of an illiterate entrepreneur to learn, grow, and change impacted by illiteracy? What opportunities emerge because of the illiterate entrepreneur's perception?

The embedded perspective on illiteracy also contends that the outcomes of literacy acquisition depend more on the ways in which literacy is used than on the measurement of it as a reading and writing skill ([Street, 1984](#); [Collins and Blot, 2003](#)). For example, the cognitive development approach looks at how people construct meaning through problem-solving processes with their acquisition of literacy skills. The assumption underpinning the work from Piaget, for example, is that with the development of reading, one also develops cognitive structures that aid in the more complicated analysis and criticism of written material ([Piaget, 1950](#)). At the same

time, in Piaget's structuralism, the individual strives for a balance between the environment and the current situation. Even if we react to our surroundings rationally, many life events require modification through adjustments in our cognitive structures. Arguably, being illiterate may remove the availability of these cognitive structures or replace them with others. For example, Honig (2004) uses Piaget's theory to develop a contingency-based model in entrepreneurship by advocating the use of analytical tools and the opportunity for hands-on training to dynamically connect environmental problems and solutions for business planning. Illiterate entrepreneurs might embark on the same level of dynamic iteration with their environment, as literate entrepreneurs. However, their attempt to strike a balance between themselves and the environment could also be different in the face of illiteracy. Arguably, the lived experience and how it is processed will gain more importance for adjustments of illiterate entrepreneurs. It is still unclear how illiterate entrepreneurs form mental models and how they change to take into account novel experiences.

Another theory that may help to understand the political, social and contextual elements of literacy from which illiterate entrepreneurs form their action is Freire's concept of emancipatory literacy. For Freire to be literate means not only the mechanical aspects of reading and writing, but also the creative act of comprehending reality critically. Literacy becomes a means of proving historically oppressed groups with the capacity to reclaim "those historical and existential experiences that are devalued in everyday life by the dominant culture in order to be both validated and critically understood" (Freire and Macedo, 1987, p. 157). Consequently, a person is considered literate to the extent that s/he is able to use language for social and political reconstruction and engages in a dialectical method with the goal of reappropriating her/his own cultural capital. This is relevant for entrepreneurship as it provides a link to the understanding of literacy as a means of dialectical institutional work to generate novel institutional structures (Smolka and Heugens, 2020). Institutional work has become more associated with entrepreneurs, as they enter structural interactions with regulators to generate, for example, an appropriate institutional setting for fast-paced technology-enabled entrepreneurship (Smolka and Heugens, 2020). Also, within the sharing economy framework, actor groups engage in institutional work and participate in dialectic discourse when developing new frameworks (Lehmann et al., 2022). In this context, how do illiterate entrepreneurs weaken, oppose, or nullify opposing institutional work that does not suit their entrepreneurial process? Are illiterate entrepreneurs able to create change and mobilize stakeholders, such as supporting community transformation and social change, as Freire advocated? If so, how do they do it?

Furthermore, Freire considers literacy to be a means of overcoming situations of historical marginalization. However, it is not clear to what extent and in what way illiterate entrepreneurs, for example, already participate in the identification of economic, social and environmental issues that can be improved through entrepreneurship and take action in that direction (Siqueira et al., 2023). Authors have proposed that markets can become inclusive places with access to entrepreneurs of all demographic backgrounds if a redefinition of market architecture and the legitimization of new actors is promoted (Mair et al., 2012). It is unclear where the ability to do institutional work begins for illiterate entrepreneurs and how institutional voids, as sources of market exclusion, are navigated.

Similarly, for the reasons why the interaction with institutional actors may be different, the interaction with organizational sponsors may differ for illiterate entrepreneurs. The embedded perspective of literacy understands the interaction between 'teachers' and 'students' as a social practice that affects the nature of literacy being learned and the ideas about literacy held by participants, especially new learners, and their positions in power relations (Street, 1984). With this understanding in mind, the interaction between practitioners associated with organizational sponsors who help entrepreneurs (i.e., SEBRAE in Brazil) and entrepreneurs themselves is subject to a social effect that impacts, arguably, how knowledge frictions take shape and how knowledge is absorbed. In the context of rural India, Qureshi et al. (2018) identify internal community boundaries, such as power relationships and social boundaries, as barriers to knowledge sharing. The authors provide examples of internal boundaries, such as caste or gender. Although not discussed explicitly, arguably, being illiterate within a community can increase power relationships and create larger social boundaries between illiterate and literate actors. How do illiterate entrepreneurs perceive the social practice of knowledge sharing in interaction with organizational sponsors? Are knowledge frictions of a different nature than those experienced by literate entrepreneurs? As illiteracy may be linked to existing social stratification like gender or caste, how does intersectionality affect these entrepreneurs in their interactions (Taş et al., 2014)? Taken together, the embedded perspective offers a set of novel research questions (Table 1).

### 3. Discussion and conclusions

The field of entrepreneurship research has overlooked and marginalized illiterate entrepreneurs. A greater understanding of the needs and challenges of illiterate entrepreneurs would help us better understand their entrepreneurial process and design and provide more meaningful and effective support. Beyond the individual, literacy is equally meaningful for situational and context-level considerations. In this article, we offer a glimpse of what recognition of illiteracy in entrepreneurship research could enable and how recognition of illiteracy could challenge researchers to reach beyond our existing knowledge horizons to develop a future of impactful, integrative, and comprehensive scholarship in the field of entrepreneurship. We encourage researchers to revisit existing concepts and test their application to illiterate entrepreneurs (Table 2). We hope that our study will excite scholars to conduct research on the role of literacy in and for entrepreneurial action, and illiterate entrepreneurs.

#### Author statement

Authors in alphabetical order. Both authors contributed equally to this manuscript.

#### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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