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"Food chemistry": High-stakes experiential entrepreneurship education in a pop-up restaurant project

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Abstract

In response to ongoing philosophical and pedagogical debates in university-based entrepreneurship education (EE) research, this study offers a cross-disciplinary perspective of how hospitality management students experience a high-stakes, experiential entrepreneurship project. We present vignettes of dialogues, experiences, and interactions among "student-manager" members of a small group engaged in developing and implementing a real-world, fine dining pop-up restaurant. By triangulating our analysis of classroom observation data, social network maps, and student artifacts, we chronicle four vignettes of how students experience learning during ideation, design, launch, and evaluation modules. Theory–practice gaps, coping humor in load–overload states, and complex affective–cognitive interactions emerge as salient elements of high-stakes experiential EE. We discuss implications for learners and educators and put forward recommendations to inform and improve the design of cross-disciplinary models of experiential EE.

Keywords Entrepreneurial affect · Entrepreneurship education (EE) · Experiential learning · Flow theory · Hospitality management · Pop-up restaurant · Real-world project

> *"Until universities become tools for human emancipation … the reproduction of forgetting the Others in entrepreneurship practice will continue." (Zawadzki, 2019).*

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Introduction

Make no mistake—hospitality is big business. Globally, hotel revenues topped $700 billion in 2021, and full-service restaurants are projected to generate $1.7 trillion by 2027. In the USA alone, hospitality services comprise close to 4% of GDP. This growth brings with it an increased demand for skilled professionals to serve at all levels of the industry with the Knowledge, skills, and abilities (KSAs) needed to perform not-yet-existing and starter jobs (WEF, 2020). Entrepreneurship-based hospitality education has arisen to meet this need. The field originated with a handful of independent Swiss hotel schools in the nineteenth century, but as the industry itself grew progressively bigger and more complex, its preparatory programs became increasingly embedded within colleges of business, with close ties to related programs such as accounting, management, and human resource development (Airey & Tribe, 2000). What the industry was not prepared for, however, was the catastrophic impact of the 2020 global pandemic, which has hit every level of hospitality and tourism, leading to unprecedented degrees of social and economic dislocation. The 2020 Future of Jobs Report shows Hospitality and related sub industries (e.g., Restaurants, Food & Beverage Services) among the highest ranked for "displaced workers" most negatively affected by the pandemic (WEF, 2020: p16). If these businesses are to recover and flourish in an unknown future, they will need managers who are not only highly skilled in key functional areas such as operations management, financial management, and marketing, but also in employing entrepreneurial mindset and competencies associated with resilience, flexibility, creativity, and compassion (Aoun, 2017).

This recognition begs the question of how people learn to practice these qualities, and, by extension, how hospitality entrepreneurship educators can effectively teach them within the context of contemporary business curriculum models. Recent criticisms of management education have identified a growing gap between the theoretical models emphasized in business classes and the knowledge that managers need to be effective on the ground (Colby, Ehrlich, Sullivan, & Dolle, 2011). This has led to an increased interest in (Kayes et al., 2005; Kolb, 2014) and criticism of (Ramsgaard, 2018) experiential learning models in which students are able to apply what they learn to real-world settings, as well as a call for increased focus on the use of impact indicators related to emotion and mindset in entrepreneurial learning. Indeed, researchers have shown that students who participate in "learning by doing" are more likely to achieve deeper learning outcomes, including coveted higher-order skills such as critical and integrative thinking (Ayikoru & Park, 2019; McCord et al., 2015). In practice, however, experiential learning has not always lived up to its promises (Dean et al., 2020), and the search continues for replicable models. Interestingly, experiential learning has been a mainstay of hospitality education since its inception. Until recently, the practice had been criticized for being insufficiently academic in its orientation (Tews & Van Hoof, 2011). The theory was originally conceived to demonstrate how people learn and understand how to stimulate that learning. Over time, it has become instead a sensemaking framework that experiential

educators can readily utilize to design a program, curriculum, or syllabus (Huxtable-Thomas & Hannon 2019: p 68).

These perspectives on experiential learning mirror debate surrounding research on entrepreneurship education in business schools. Entrepreneurship education (EE) equips students with mindset and competencies to manage the challenging circumstances inherent in entrepreneurial activity (Tittel & Terzidis, 2020), equipping them with skills for resilience and a capacity to address, adapt to, and overcome adversity, uncertainty, and change. In their review of the impact of entrepreneurship education on higher education, for example, Nabi et al. (2017) identify that entrepreneurship education research still tends to severely underdescribe the actual pedagogies being tested. Others (e.g., Keller & Kozlinska, 2019) point to weaknesses in the use of novel impact indicators related to emotion and mindset and a failure to account for what O'Neill et al. (2021) refer to as "constructive controversy" in entrepreneurship education, business, and management. These have created an opportunity to fill gaps in the scholarship of teaching and learning related to the use of experiential learning pedagogies to achieve EE outcomes within hospitality management programs. This paper offers a cross-disciplinary perspective from entrepreneurship and hospitality management education. With a deliberate and purposeful focus on high-stakes experiential learning, we use and triangulate ethnographic and artifact data to account for the largely overlooked factors of affect (emotions), response to failure, and human-centered pedagogy in entrepreneurship education.

Literature

Philosophical issues in entrepreneurship education In their meta-analyses of entrepreneurship education (EE) research, González-López et al. (2019) identify several gaps. These include integration of concepts and models from education and philosophy (Byrne et al., 2014); experimentation with and incorporation of teaching approaches for learning from failure and handling emotional issues (Loi et al., 2016); and the need to reduce the gap between theory and practice (Mwasalwiba, 2010; Naia et al., 2014).

There has been a critical turn in EE scholarship representing trends against positivism, objectivism, and rationality. These critical entrepreneurship perspectives advocate for a) uprooting EE from purely neoliberal enclaves (Zawadzki, 2019); b) engaging in greater ethical, socially relevant practices of EE (Tunstall & Neergaard, 2021); and c) introducing collaborative models for didactic learning based on humanistic approaches (Lackeus & Middleton, 2018; Rhoades 2018). Bell (2021) links education theory and learning to EE by highlighting how behaviorism, cognitivism, constructivism, and humanism can be used to underpin and support learning in EE. He argues that philosophical leanings toward constructivist and humanistic education approaches to entrepreneurship emphasize learner-centered creation of meaning from knowledge and the development of the "whole person." These perspectives align with scholars like Holt (2020) who criticize purely knowledge transfer approaches to EE. Other scholars (e.g., Fayolle et al., 2016; Neergaard et al., 2020) have called for a focus on how educational philosophies and theory

can be integrated into entrepreneurship education to better support educators and learners. Tunstall and Neergaard (2021), for example, highlight the importance of experiential EE which places students at the center of learning and educators in the guided peripheral role of facilitator. Finally, cognitive theories of learning look beyond observable behaviors and at how information is received, organized, stored, and retrieved by the mind. The entrepreneurial processes are inherently uncertain and risk-intense and per Baron (2008), affect (emotions) can profoundly impact key entrepreneurial outcomes—learners' cognitive ability to think creatively, problem-solve, and respond to failure. Entrepreneurship educators are therefore constantly in search of optimal "affective-cognitive" models of learning where students are active participants at the center of their own learning process.

Such philosophical viewpoints on EE approaches have individually and collectively influenced the debate around pedagogical issues, prompting trends toward exploration of collaborative experiential learning models of EE; development of impact indicators related to entrepreneurial emotions; and participant-centered roles in co-creating learning outcomes for entrepreneurial mindset, entrepreneurial self-efficacy and related competencies.

Pedagogical issues in entrepreneurship education In their comparative analysis of EE in three business schools, Bhatia and Levina (2020) and Fayolle & Gailly (2015) argue that the diverse approaches to learning outcomes within EE are linked to how definitions of entrepreneurship are framed by educators. These outcomes generally result in either new venture creation which focuses *knowledge*-forward pedagogies on "starting a business," or in deepening entrepreneurial mindset which focuses *meaning*-forward pedagogies on "self-efficacy." Several scholars (e.g., Béchard & Grégoire, 2007; Garbuio et al., 2020; Holt, 2020; Rice & Stitt, 2019) criticize knowledge-forward approaches as being too focused on relatively simple knowledge transfer and not enough on more rigorous, shared meaning and thinking. Holt (2020) goes further to invoke Arendt's *Conscience* conventions in favor of placing "unruliness at the heart of management practice." In this sense, meaning- and thinking-based pedagogies ought to reflect the messiness of EE more radically and distinguish it from pure scientific rationality within business and management. Calls for privileging meaning over knowledge respond to the dearth of studies which account for and describe entrepreneurial affect (Baron, 2008) in EE pedagogical design. Dean et al. (2020) call on educators to support the types of learning outcomes that account for student entrepreneurial affect or emotions by engaging in experiential pedagogy—even if such pedagogies violate teaching conventions which regard emotion as undesirable. Given two-thirds of entering college students will hold jobs that do not yet exist, entrepreneurial skills such as collaboration, adaptability, and interpersonal sensitivity—learned both in and outside of the academic setting become particular important (Hayes et al., 2021).

Authors like Dean et al. (2020), Keller and Kozlinska (2019) and Wang et al. (2020) argue for the application of experiential learning theory to EE pedagogy. Experiential learning is an innate process of assimilating learning as a result of experience; it is clearly seated inside the learner's mind (Huxtable-Thomas & Hannon, 2019). Consequently, experiential learning (and its subset, immersive learning) develops a learner's ability to navigate negative emotions associated with learning

from failure, chaos, situational crises, stress, and uncertainty which arise from the entrepreneurial learning process.

A response from hospitality management education

The above arguments reflect ongoing debate of key issues surrounding EE within contemporary business and management schools. Figure 1 broadly summarizes these arguments across eleven philosophical and twelve pedagogical issues. Individually and collectively, five of these issues—cognitivism, experiential (immersive) learning, cross-disciplinary models, entrepreneurial affect, and self-efficacy, form an appropriate theoretical gap within which we situate this study.

Hospitality management with embedded entrepreneurship education In recent years, several schools of hospitality and related management programs (e.g., tourism, travel, leisure, sport, recreation, entertainment, culinary, and food service) have moved to (re)house their curricula within business and management schools (Ahmad, 2015; Alexakis & Jiang, 2019). In tandem, hospitality management increasingly emphasizes the critical nature of entrepreneurial (and intrapreneurial) skills and competencies within undergraduate curricular—albeit with mixed results. Ahmad (2015), for example, found students' perceptions of the entrepreneurship module in their hospitality and tourism programs did not consider entrepreneurship an important subject within their program. On the other hand, Hayes et al. (2020) found that business and non-business undergraduates of all majors expressed intentions to launch businesses after graduation and importantly that select student groups showed few significant differences when compared to entrepreneurship majors.

Increasingly, EE emphasizes pedagogy which focuses learning goals on value-creating outcomes for at least one external stakeholder outside the group, class, or
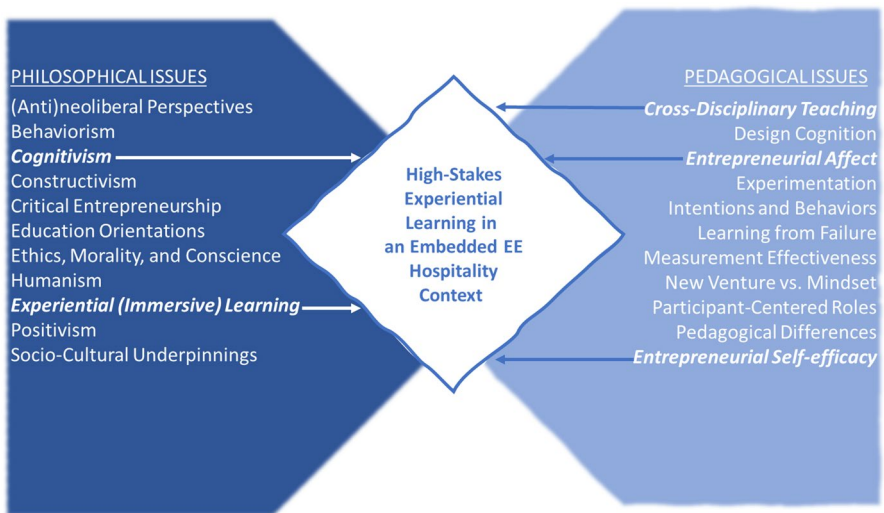

Fig. 1 Situating entrepreneurship education (EE) and hospitality management in this study

school (Bell, 2021; Lackeus et al., 2016). Embedded EE in hospitality experiential learning provides a unique and appropriate context to place learners at the heart of activities which create value for their university and wider community. This study adopts Jones and English (2004) definition of EE as the process of providing individuals with the ability to recognize commercial opportunities and the insight, self-esteem, knowledge, and skills to act on them. It includes instruction in opportunity recognition, commercializing a concept, marshaling resources in the face of risk, and initiating a business venture. Embedding one or more of these EE elements in hospitality management education seeks to enhance entrepreneurial mindset and competencies.

Per Fig. 1, and in response to select philosophical (cognitivism, immersive learning) and pedagogical (cross-disciplinary teaching, entrepreneurial affect, self-efficacy) issues in contemporary EE research, we use and analyze a hospitality entrepreneurship pop-up restaurant project to explore how students experience experiential EE. We use key themes from these experiences to recommend how educators can design and deliver improved experiential EE in real-world projects. This study uses a variety of qualitative research methodologies to assess how hospitality entrepreneurship students experience a high-stakes experiential learning pop-up project in support of a focal research question: *what are some key characteristics of immersive learning experiences of hospitality management students in a collaborative high-stakes entrepreneurship education setting and how can these characteristics improve real-world entrepreneurship education in hospitality management?*

Methods

Study context and design

We employ abductive inferential techniques to theorize the student experience in a high-stakes immersive entrepreneurship education learning experience embedded in a hospitality management program. In contrast to induction and deduction, abduction seeks primarily to understand and explain the dynamics of a specific phenomenon, with the potential to develop generalizable and transferrable insights (Behfar & Okhuysen, 2018). With abductive techniques, researchers engage preliminary and partial study data to generate and test hypotheses recursively throughout the study period (Tracy, 2019). For this study, researchers gathered qualitative data through ethnographic observation, social network mapping, and document analysis of student artifacts. Throughout the study period, researchers applied the abductive techniques of revisiting, defamiliarization, and recasing (Timmermans & Tavory, 2012) to derive insights from field notes, data codes, social network maps, and student artifacts. Guided by these insights, the researchers hypothesized elements of the student learning experience in a high-stakes immersive entrepreneurship education experience, and how these elements impact learning outcomes, to inform effective entrepreneurial education learning design.

The study context is a senior capstone course situated in a 4-year, undergraduate hospitality management (HM) program with embedded entrepreneurship education

where degree requirements prescribe completion of 15–16 credits of entrepreneurship and innovation (ENTI) courses. The goals of the HM program include enhanced entrepreneurial mindset, problem-solving, and ethical decision-making skills. Prior to 2019, the focal course was delivered as an independent study. In summer 2019, the course was redesigned with a team of experts in learning design, teaching research support, and hospitality entrepreneurship instruction. Specific changes involved the development of a high-level scaffolding design centered around information search, rich learning experiences, enhanced interpersonal skills, and reflective dialogues.

The key deliverable of the redesigned course was implementation of a 5-course pop-up restaurant experience in week 12 of the course. Financial and service performance metrics targeted break-even or better and 4-to-5-star service ratings. Around week 3, following an escape room team activity, designed to reveal students' entrepreneurial strengths, students self-assigned "student-manager" roles and responsibilities for production/back-of-house (BOH) and service/front-of-house (FOH) areas across four entrepreneurial process modules: I. ideation/conceptualization, II. design/development, III. launch/implementation, and IV. feedback/evaluation. Key resources provided included a monetary grant, research and new business guides, 1,407 sq. ft. building space, and access to local experts and mentors (chefs, restaurateurs, entrepreneurs).

The research team comprised the course instructor, the campus liaison librarian for hospitality management and entrepreneurship education, and a university research faculty with expertise in learning design. The librarian, who was familiar to students in the course as a guest presenter and reference librarian for their degree program, facilitated the study recruitment and consent processes and conducted ethnographic class observations and social network mapping. Enrolled students were invited to participate in the study. No incentive was provided for participation.

Data collection

Investigators utilized ethnographic observation, social network mapping, and document analysis of student artifacts to understand the student experience over the arc of the course. Use of diverse data collection methods helped ensure the data captured would be most representative of the breadth and depth of verbal and non-verbal elements through the dialogues, experiences, and interactions of study participants. Together, these support abductive analysis (Timmermans & Tavory, 2012) to discover key characteristics of immersive learning experienced by subjects.

Ethnographic observations A non-instructional member of the research team conducted weekly classroom observations, documenting phenomena of interest (Table 1) in written field notes and using thick description to provide a detailed accounting of consenting students' classroom learning experiences (Geertz, 1973; Ryle, 1968). The class convened twice weekly, split between theoretical lectures from the instructor on one day and executive meetings of the student management team on the other. These student management team meetings were the subject of the classroom observations. At the start of each team meeting class session, students rearranged the classroom desks to mimic a conference table configuration.

Table 1 Documenting Phenomena of Interest, Data Sources, and Theories for Analysis

	Cognitive domain	Affective domain	Small group dynamics
Theories for Analysis	*Significant learning*	*Significant learning*	*Significant learning*
	Applied/experiential learning	*Human-centered instruction/design*	*Applied / experiential learning*
	Desirable difficulty	*Information search process*	*Desirable difficulty*
	Escalation of commitment		*Escalation of commitment*
	Human-centered instruction/design		
	Information search process; satisficing		*Small group development process*
Data sources	Idea sharing	Constructive v. destructive forms of engagement	Evidence of engagement
Weekly classroom observation	Depth of engagement (ex. Bloom's taxonomy)	*Does it advance the team toward achieving the goal?*	Speaking and conversation
	References to course materials, strategic planning binder, library resources	Evidence of negative affective states (frustration, stress, withdrawal, etc.) and positive affective states (excitement, engagement, energy)	Nonverbal behavioral cues (posture, facial expression, eye contact, tone, inflection)
	Information-seeking beyond course materials	Nonverbal behavioral cues (posture, facial expression, eye contact, tone, inflection)	*Social network mapping*
	Use of classroom spaces and resources (ex. whiteboard)		*Small group formation:*
	Use of subject-matter expert (consulting instructor)		Initiator, promoter, and responder role formation
	Use of SME for content expertise vs. conflict resolution		Leader/follower role formation
	Creation and management of group deliverables		Front-of-the-house and back-of-the-house group formation

Table 1 (continued)

Theories for Analysis	Cognitive domain	Affective domain	Small group dynamics
	Ability to change direction in evidence-based ways (contra-escalation of commitment)		Forming, storming, norming, performing
			Conflict resolution:
Student artifacts	Depth of engagement (ex. Bloom's taxonomy)	Awareness of self, other, and team	Problem definition, task identification, task and role adoption/assignment
	References to	Conflict resolution	Evolution of group ideas and decision-making
	Course materials, strategic planning binder, library resources	Constructive v. destructive forms of engagement	Front-of-the-house and back-of-the-house identification
	Information-seeking beyond course materials	Does it advance the team toward achieving the goal?	Forming, storming, norming, performing
	Creation and management of group deliverables	Self-reporting of negative affective states (frustration, stress, withdrawal, etc.) and positive affective states (excitement, engagement, energy)	Conflict resolution:
	Ability to change direction in evidence-based ways (contra-escalation of commitment)		Problem definition, task identification, task and role adoption/assignment

The ethnographer sat at a separate desk slightly behind and to the side of the student management team, with a clear sightline to and within earshot of the students. The ethnographer wrote longhand field notes in a notebook documenting observable student behaviors, body language and facial expressions, speech, and interactions, identifying study subjects by participant numbers (e.g., P1, P2, P3, and so forth). Additionally, the ethnographer observed BOH operations during the prep night preceding the staging of the pop-up restaurant from a seat just outside the kitchen and journaled her experience as a guest in the dining room on the night of the pop-up restaurant. Altogether, the ethnographer documented thirteen observations, comprising approximately twelve hours of classroom meetings (including the escape room activity), five hours of BOH prep-night operations, and one hour of pop-up dining experience, composing analytical memos from field notes totaling more than 28,000 words.

Social network maps On alternating weeks, the ethnographer simultaneously conducted social network mapping using the classroom engagement mapping software, *Equity Maps*, installed on a tablet. Social network mapping was used to measure the proportion of activity represented by study participants compared to non-participants, to assess the representativeness of ethnographic data. The software tracks engagement based on number of times spoken (the number of times an individual speaks), time spoken (the total time for which an individual speaks), and social network mapping (direct communication between individuals). This enabled the tracking of linkages among study participants, and between participants and a composite
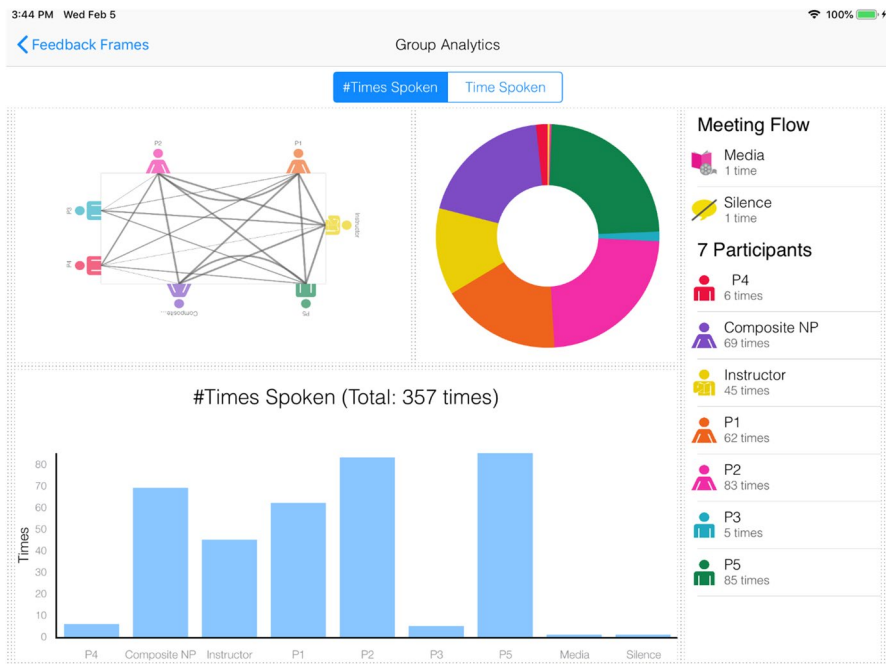

Fig. 2 Sample equity map

non-participant avatar. The ethnographer generated social network maps for four classroom observation sessions, mapping five hours of student management team interactions and documenting more than 1,700 incidents of speech (see sample map in Fig. 2).

Equity Maps data validated the nature and proportion of student activity captured by observing study participants relative to the class as a whole. The data revealed that study participants regularly accounted for the majority of speaking instances and speaking time relative to their non-participating classmates, as shown in Table 2. Similarly, *Equity Maps* data confirmed ethnographic observations that study participants communicated with other participants at the same or higher rate than they communicated with non-participants. This social network mapping data suggests that insights gained from ethnographic observations of participants can inform learning design for entrepreneurship education in ways that substantively affect the overall classroom dynamic and student learning experience.

Student artifacts The research team conducted qualitative document analysis of study participants' written work to generate more observations about their tacit experiences and affective states throughout the course, and to triangulate insights from the ethnographic observations and social network analysis. A monthly peer and self-assessment assignment, *The Wednesday Weather Journal (WWJ),* asked students to reflect on and utilize images of the weather to depict their experiences during each of the four modules (e.g., "sunny = good," "partly cloudy = ok," and "stormy = bad"). This assignment, due monthly on four Wednesdays across the semester, adopted a "Dear Diary" approach for peer and self-assessment (Lackéus & Middleton, 2018; Tunstall & Neergaard, 2021). These documents provided rich insight into participants' thoughts, feelings, and experiences with each of the four modules (Bowen, 2009). Analysis of these documents occurred after the conclusion of the course. Artifacts were analyzed chronologically for each individual participant, chronologically for the entire study group, and thematically as suggested by the results of abductive defamiliarization and alternative casing (Tracy, 2019). This enabled the researchers to triangulate, validate, and contextualize personal experiences with observational data and analysis. Document analysis enhanced and contextualized ethnographic observations, especially for those study participants who exhibited low classroom engagement as evidenced in the social network mapping data.

Data coding and analysis

Three abductive analysis techniques: (1) revisiting, (2) defamiliarization, and (3) alternative casing, were conducted concurrently during the data collection phase to derive insights from field notes, generate explanatory theories, and identify focal points for subsequent classroom observations (Timmermans & Tavory, 2012). These abductive techniques explored the raw ethnographic data at three levels of abstraction: an initial attempt to synthesize observations and conduct preliminary theorizing through revisiting; deriving insights from observations, with a purposeful focus on curious, troublesome, or unexplained phenomena, through defamiliarization; and

Table 2 Comparison of Study Participant vs. Nonparticipant Time Spoken and Times Spoken

	Subject	Time spoken (duration)	Time spoken (%)	Times spoken (instances)	Times spoken (%)
Observation 1	Participant 1	21.8 min	28.989%	135 times	26.062%
	Participant 2	10.2 min	13.564%	123 times	23.745%
	Participant 3	0 min	0.000%	0 times	0.000%
	Participant 4	24 s	0.005%	11 times	2.124%
	Participant 5	6.8 min	0.090%	65 times	12.548%
	Composite nonparticipant	16.9 min	22.473%	145 times	27.992%
	Instructor	19.1 min	25.399%	38 times	7.336%
	Total	75.2 min	–	518 times	–
Observation 2	Participant 1	12.4 min	17.222%	62 times	17.367%
	Participant 2	9.4 min	13.056%	83 times	23.249%
	Participant 3	22 s	0.005%	5 times	1.401%
	Participant 4	1.2 min	1.667%	6 times	1.681%
	Participant 5	15.7 min	21.806%	85 times	23.810%
	Composite nonparticipant	8.2 min	11.389%	69 times	19.328%
	Instructor	24.7 min	34.306%	45 times	12.605%
	Total	72.0 min	–	357 times	–
Observation 3	Participant 1	14.0 min	18.325%	71 times	14.460%
	Participant 2	10.6 min	13.874%	107 times	21.792%
	Participant 3	0 min	0.000%	0 times	0.000%
	Participant 4	17 s	0.371%	6 times	1.222%
	Participant 5	5.9 min	7.723%	47 times	9.572%
	Composite nonparticipant	18.2 min	23.822%	152 times	30.957%
	Instructor	27.3 min	35.733%	107 times	21.792%
	Total	76.4 min	–	491 times	–
Observation 4	Participant 1	12 min	14.815%	50 times	14.451%
	Participant 2	4.5 min	5.556%	51 times	14.740%
	Participant 3	6 s	0.123%	3 times	0.867%
	Participant 4	2.2 min	2.716%	10 times	2.890%
	Participant 5	0 min	0.000%	0 times	0.000%
	Composite nonparticipant	11.7 min	14.444%	96 times	2.775%
	Instructor	43.9 min	54.198%	132 times	38.150%
	Total	81.0 min	–	346 times	–

theorizing observations to produce generalizable and transferable implications for practice in entrepreneurship education through recasing.

To engage the abductive technique of revisiting, the ethnographer composed weekly analytical memos immediately following classroom observations. Memo

writing served as the first iteration of interpreting meaning from field notes and social network maps at one level of abstraction, moving from observations of individual behavior and group engagements to theory-informed preliminary hypotheses about tacit individual experiences (in the affective and cognitive domains) and small group dynamics of the student management team. In each analytical memo, field notes were transcribed verbatim from longhand accounts of the observation session. These field notes are followed by a section labeled "theoretical insights" that includes interpretive statements, questions, phenomena of interest for future observation sessions, theoretical frameworks or literature references, and other notes from the ethnographer.

Defamiliarization occurred through coding field notes by freely categorizing observed phenomena and then examining category codes for links to associated theories, producing analysis at a second level of abstraction. The ethnographer performed open coding recursively on a biweekly basis, not on the same day as classroom observations. Guided by the phenomena of interest to the study, the initial coding process applied structural, descriptive, in vivo, process, and affective codes to observational data (Saldana, 2009). During this defamiliarization process, anomalous, exceptional, or edge cases were noted where observed phenomena could not be satisfactorily explained by the existing theoretical framework; inquiries reformulated, and additional explanatory theories sought in the literature (Timmermans & Tavory, 2012; Tracy, 2019). Coding cumulative observational data in recursive iterations yielded new insights for classroom observations and additional avenues of inquiry for the third stage of abductive analysis, alternative casing. The ethnographer performed five cumulative rounds of coding throughout the study period, coding analytical memos until saturation at which point no new codes were generated, producing fifty primary codes and more than ninety secondary and tertiary codes to add context and points of comparison. The ethnographer then reviewed data codes to identify additional avenues of theoretical exploration to explain observations about the student experience in the course.

Alternative casing was achieved by recasing coded observational data and analytical memos through theoretical analysis. At this third level of abstraction, newly considered theories identified during defamiliarization were applied to existing data and analysis to gain new insights and yield unanticipated findings (Timmermans & Tavory, 2012). Alternative casing can reveal synergies between theoretical frameworks and serve as a theory generative technique of qualitative analysis by surfacing anomalous cases and seeking to explain them. Alternative casing was done at the conclusion of each content module, four times during the course. The ethnographer first identified surprising or unexplained observations surfacing during defamiliarization by considering unique secondary and tertiary codes that highlighted edge cases in the data. The ethnographer then borrowed from past literature to identify structurally similar phenomenon or assigned new naming to phenomenon not readily connected to extant literature. This abductive analysis process demonstrates how insights were derived from observed phenomena of interest through abduction (Appendix A).

Findings

The following vignettes synthesize results from abductively analyzed ethnographic observations, maps, and student artifacts to explore key characteristics of hospitality management students' experiences in experiential EE.

Module I [Ideation]: "Hate me now or hate me later?"

Students are bustling around the board table and at the presenter's station in the classroom, making last-minute preparations for their presentation to Chef. They circulate copies of their planning documents and project PowerPoint slides on the screen. Chef enters class and is invited to sit at the head of the table, ahead of students' introductions. Instructor calls the class to order promptly, and introduces the purpose of the session: for the student-manager team to present their restaurant concept and menu to Chef and receive his expert feedback. Instructor then turns the class over to students for their presentation:

> P1 begins with some uncertainty, "Ok…", explaining the team's leadership structure and presenting Module I. The presentation transitions to P5, back-of-house (BOH) lead, who details the menu selections. P5 quickly describes the signature drink, a blueberry lemonade, and sprints through a series of appetizers, salads, entrees, and desserts, as another student manages the slide presentation featuring images of the proposed dishes. The presentation completed, the student-managers turn expectantly to Chef.
>
> Chef foregrounds his feedback with: "Do you want to hate me now or hate me later?" Chef's feedback stems from three major considerations: ingredient seasonality, prep kitchen constraints, and budget. Chef advises the team to streamline their menu options, to "think more fall" in terms of their ingredients and recipes, and to be conscious of their budget. Chef also offers a strategy of reducing portion size for cost-management.
>
> At this initial feedback, P1 appears visibly upset, red-faced, and is uncharacteristically quiet and looking down at the table, seemingly submissive to Chef. Chef suggests the team continue to discuss menu selections for the next week and email him an update, including both a primary and back-up menu, and reminds the team to think in terms of cost-effectiveness.
>
> P2 bubbles: "I'm excited, this is going to be fun, I'm so glad you're here to give us this guidance!" P1 is noticeably quiet, mouth pursed, arms crossed over their chest.
>
> The discussion winds down. At instructor's prompting, P4 says, "My only input for the group is trying to get Chef to check out the kitchen to make sure we can cook everything we offer on the menu." The team schedules a follow-up meeting in a few weeks to confirm the menu based on the kitchen walkthrough.
>
> Once instructor and Chef have left the classroom, P1 stands and opens up: "Guys, I'm literally about to breakdown crying, we're so far behind!" detailing how the team was supposed to finalize the menu and module 1 this week in

order to move onto financial planning and module 2 during the coming week. P1 sits back down, covers her face and cries. Other team members gather to console her, offering reassurance that the team is on-track and that the feedback from Chef will help them improve their ideas.

Instructor returns to class to find P1 upset and being consoled by teammates. Instructor has a real heart-to-heart moment with the class, assuring them that she is proud of what they presented to Chef, and that it is entirely normal and expected for menu concepts to continue to evolve as the financial planning reveals issues with budget, revenue projections and cost management. Instructor also reminds the team to share the load of the stress of the experience, so that it does not all fall to one person. Instructor reminds the students that she and Chef will not permit them to fail on the night of the pop-up restaurant, come what may, and that they have the knowledge and resources they need to be successful. Reflecting in their WWJ, P1 identifies lack of research effort as a contributing factor in the team's performance: "I broke down when Chef did not approve our menu because he was right, no one researched menus ... The menu was a hodge podge of ideas. It was an embarrassment." By contrast, P2 notes: "I felt engaged when the chef came to our classes to rely on him as a second resource," while P5 observed, "I was most engaged as a learner when a professional chef gave us his insight into the restaurant business and recipes."

Module II [Design]: "The baby is coming!"

As student-managers debate the details of menu-engineering and other aspects of their design module, Instructor reminds the team, "What I sign off on next week is final–this triggers approvals from purchasing… After next Tuesday, we go to launch. Launch means action."

The team goes on to discuss the timeline leading up to the pop-up restaurant, invoking an inside joke: "The baby is coming!" P5 interjects to say they are working with Chef on sourcing ingredients, and that they have been actively in contact with chef since their first menu proposal: "No offense, but this is why I asked you to please not touch the menu, because I've been communicating with chef about recipes, ingredients, preparation methods..." P2 responds quickly to diffuse the rising tension, "Ok, I feel you, I feel you."

Following further discussion, P1 asserts: "Speaking of shopping, we need to know who's going shopping and who's prepping that night. Hear me out – you cannot do both – you can shop and then take a nap and then prep – but if you're not equipped for a 12–18-hour day…" P3 insists: "I can do both." P1 cajoles P5: "You can sit next to me on the bus!" P3 chuckles. P5 responds, sarcastically, "Smile and wave, smile and wave… put me down for both."

P1 then responds to a clarifying question raised about the dress code: "When [outside expert] comes in, we'll make that our final decision day. I have two dresses picked out, both are black and white, and I'll be wearing black Nikes because I'll be running up and down the stairs" between back-of-the-house and front-of-the-house. Instructor interjects wryly, "You'll not be running…"

P1: "I won't be running, I'll be going up and down the stairs at a polite pace." The class shares a chuckle at this exchange.

At a lull in the place setting discussion, Chef inquires: "Is anyone stressing about anything?" P2 replies: "Yes, but that's ok." P1 says: "I'm worried about the [lack of] volunteers. What we wanted to do as far as staffing and volunteers is one volunteer per person…. That's one person for each of us to practice 'management' skills on," P1 says with a scare quote hand gesture. P1 lists example duties and roles for team members and volunteers. "This is like a little test of your management skills. We're working on a manual so they will have something to reference." P1 explains the manual will cover roles, tasks, expectations, dishes, restaurant goals, and mantra. Instructor emphasizes that students should recruit first from the hospitality management club, emphasizing: "If there is a reason to panic, we'll panic together, and we'll solve it."

Chef goes on to praise the student team: "I really appreciate seeing the drive you all have this year. We're really going to wow some people…" and then reminds them: "Three more weeks!" A student is heard making their inside joke: "The baby is coming!" The class period ends, and students are packing up.

Module III [Launch]: "Do we want to keep the carrot heads on?"

On restaurant prep-night, students establish stations and work singularly or in pairs at their tasks: trimming produce, separating eggs, trimming cuts of meat, washing dishes, removing waste, and sanitizing between ingredients. Their actions are self-directed and purposeful; they maneuver together in the intimate prep kitchen space like so many parts of a whole. They work with quiet contentment, the background music punctuated by occasional exclamations:

"We need to get someone cutting figs!", "Do we want to keep the carrot heads on?", "Hot! Hot! Hot!", "Sharp! Sharp knife behind you!" and variations of "That smells great!" Energy and enthusiasm streams from the kitchen, where their methodical work belies a calm detachment. In fact, they are *immersed*, joyfully absorbed in their restaurant management work. They have achieved a flow state.

Students are not only deeply engaged in their food production tasks but are also actively engaged in learning. Chef invites discussion about their emotional state – "Everyone excited about tomorrow? Anyone nervous about tomorrow?" – but the invitation goes largely unanswered, as a few students murmur quiet responses from their workstations. What they really want to talk about is ingredients, technique, and dish execution.

Students inquire with chef on a range of food production topics: techniques for cracking and separating eggs, scaling a *crème brulèe* recipe to substitute local organic duck eggs for chicken eggs, whether duck egg whites are as useful as chicken egg whites, tempering eggs to achieve proper custard consistency, techniques for cooking the custard at a consistent temperature, slicing roasted vegetables to lie flat on a plate, mixing and kneading pasta dough for seasonal

pumpkin ravioli. The only break in student work comes when they gather to watch Chef make the ravioli, which prompts P2 to exclaim, "I love those [piping] bags, this is so cool!" and P3 to joke about putting their tongue through the dough sheeter.

Observing the students' work from the threshold of the prep kitchen, the instructor confides to the ethnographer, "Oh, look at them! I'm just so happy, it's going so well! I'm so proud of them!"

Module IV [Evaluation]: "I felt like a sheriff bringing the bad guy into the saloon for the prize of ten shiny gold coins"

Pop-up restaurant night arrives. Chef and production (BOH) student-manager teams are busy prepping and putting finishing touches on multi-course items in the production kitchen. Instructor and service (FOH) student-manager teams are bustling to assemble table settings, lighting, décor, and service stations. Then, two hours before guest arrival, panic:

> The instructor's attention is called to a report from the BOH that, arising from tensions with P2, P5 has walked off the production line. Instructor arrives at production kitchen and is greeted by Chef, "[P5] left. I don't know what happened. [P5] just took [their] jacket off and left. I don't know where [they are]."
> Instructor inquires on the whereabouts of P5, who eventually surfaces after a few moments. Instructor invites P2 and P5 into a closed-door meeting. The three emerge with P2 returning to the kitchen and P5 walking away from the production kitchen area. Instructor speaks with P1 (FOH) student-manager. Shortly thereafter, P1 begins donning a chef jacket, heads to the production kitchen. P1 has been reassigned to the BOH student-manager team.
> Despite this stress and disruption, the restaurant is running without a hitch so far as the dining guests are concerned. Guests are attended by a mix of student volunteers who refresh their water glasses and inquire as to their satisfaction with each course. The energy in the dining room is cheerful and loving; like an extended family reunion.
> Reflections from Wednesday Weather Journals on the night of the pop-up:
> "The most challenging thing was me controlling my emotions and I regret everything that [has] happened that day. This has shown me my negatives that I need to work on to get better and succeed." [P5]
> "The most challenging part of this assignment was having to witness flair ups. Classmates crying, being combative and running out of sessions all reminded me of the feeling that this photo shows of sun peeking out through the sky. Was the much-needed sunshine going to take over and chase away the snow? Concern about my classmate's acting out had an affect [sic] on me. It challenged my creativity and flow with this wonderful project." [P2]
> "Overall, I felt like a cowgirl throughout this entire course. I was out on the range trying to beat the setting sun on my trusty steed. I don't want to refer to my classmates as outlaws and cattle but some days it felt as though I was wrangling them. What was most memorable was the night of the event. Where

everything came together, and I felt like a sheriff bringing the bad guy into a saloon for the prize of ten shiny gold coins." [P1]

Discussion

In the preceding paragraphs, we present vignettes of dialogues, reflections, and experiences of student managers immersed in a real-world pop-up restaurant project. It is important to point out that, while the four vignettes are presented for parsimony, in practice, salient themes emerging represent a complex interplay of affective–emotive learning which must be accounted for in the cross-disciplinary design of collaborative experiential learning activities in university-based entrepreneurship education. These themes are discussed below.

Theory–practice gaps and the role of experts The theory–practice gap (TPG), or research-practice gap, describes the "lack of translation of evidence-based interventions and policies to practice settings" (Neal et al., 2015). The TPG arises, in part, from the different strategies that academics and practitioners utilize to arrive at the conceptual generalizations underpinning their practice (empirical and experiential, respectively). In this study, the TPG presents a source of conflict. When students undertake their first high-stakes EE experiential learning task of presenting their menu concept to an industry expert for validation, TPG is evidenced by way of a divergence between theoretical knowledge from classroom study and experiential knowledge through expert feedback. Chef's significant contributions to learning featured prominently in students' Wednesday Weather Journals, showing how observational and artifact data reveal how the TPG implicates the affective domain of purposeful pedagogy and human-centered instructional design.

In responding to TPG as source of conflict, educators must anticipate and respond with an appropriate level of skill. Beyond a priori design, educator skill is needed when TPGs emerge as conflict which triggers diverse student emotions, particularly negative ones. Observational and artifact data, for example, evidence P1's visceral, emotive response to Chef's critique of the initial menu. In response, instructor becomes part-consoler and offers reassurances for pivoting and reassembling. This is reflective of Wright et al. (2021) Mode 4 ranking of situations and activities that have the highest potential for student distress, triggering emotions such as anger, shame, and inadequacy which may persist well after class ends, and leave students without clear processing support. Educators should, in such situations, possess extensive training, experience, and the skill of "Master craftsperson" (2021, p9) to effectively manage emotions which may arise from TPG-induced conflict.

Understanding how the TPG manifests in immersive experiential learning activities points to instructional design and pedagogical strategies for bridging it. Design of a high-stakes experiential learning activity should include direct, active involvement of an industry expert and/or instructor with experience in practice. This serves to provide an authoritative source of practical wisdom to place theory in applied context and address TPGs in the cognitive domain, while attending to the affective experiences of the TPG in an applied learning environment.

Load–overload states and human-centered design Affective load describes a negative emotional state and is defined by theorist Nahl (2005) as uncertainty intensified by felt time pressure. It is analogous to, and mediating of, cognitive load in the learning process. The in-joke that surfaced among the student managers as guest reservations started rolling in and pop-up implementation approached was, "the baby is coming!". The anticipation of an expectant parent is an archetypal affective load experience, comprising both uncertainty and felt time pressure. In a high-stakes experiential modality, students must operate under conditions challenging affective and cognitive load to progress in the intellectual, social, and personal dimensions of learning.

Affective and cognitive overload can, however, disrupt learning processes (Çetin et al., 2016). P1 experienced a self-described emotional "breakdown," P5 got in an altercation with P2 and "walked off" the production line hours before the restaurant opening, and P2 described feeling "post-traumatic stress" after the pop-up restaurant. Expressions of uncertainty, frustration, irritation, dissatisfaction, disagreement, distrust, perceived unfairness, and simple "personality conflicts" were noted over the observation period. When students were coached toward self-awareness, however, these experiences also served as catalysts for personal and professional growth. In a markedly contrite student reflection, P5 confided challenges and regrets in their emotional response to situations. Such data evidence suggests that while undesirable and potentially destructive to learning, affective overload can also be a necessary indicator of when affective load is optimized, and a sign when the student has reached a point of diminishing returns, and instructor intervention is needed.

The timing of affective and cognitive overload is difficult to predict, given its largely situational and personal nature. Designing for human-centered education (Bell, 2 2021; Holt, 2021) aims to achieve balance in load–overload states shaped by internal and external stimuli and to assure learners that development of their "whole self" is an important objective of learning as they navigate higher-order entrepreneurial skills development in real-world projects. This is important for two reasons. First, a move toward humanistic design expands pedagogical focus from purely neoliberal perspectives of venture creation and profit maximization toward development of socially, ecologically, and morally sustainable skills and competencies and can support expansion of EE beyond business schools and across a wider range of disciplines. Second, the objective of learning in humanistic education privileges the development of the "whole person" and includes cognitive and socioemotional development. While issues of student emotions challenge teaching norms in business and management (Dean et al., 2020), educators should design (and emotionally prepare) for load–overload states which intersect scientific rationality with emotions in the classroom. This includes creating impact indicators for emotion and mindset to deepen the learners' experience of self and Other.

Coping humor as survival Humor is a sophisticated mode of communication that moderates affective experiences, conveys context for information and functions in small groups. Coping humor was the dominant positive adaptation to affective load exhibited by student managers appearing across cognitive and affective domains. In one journal reflection, P1 confesses, "I don't want to refer to my classmates as outlaws and cattle but some days it felt as though I was wrangling them." Coping humor

thus serves as an affective load adaptive strategy for P1, who navigated fraught emotional and social landscapes as the student-manager team's de facto leader. Expressing her experiences through humor demonstrated maturation from the student who exhibited affective overload following Chef's initial critique of the team's restaurant plan, to a restaurant manager who was able to marshal conflicting personalities with competing priorities into an effective fine dining production team.

Humor and joking, and its role in the affective and cognitive domains, points to new considerations for purposeful pedagogy, experiential learning, and human-centered design in teaching and learning. A primary function of humor evidenced in the observational data is to provide a psychological buffer for processing negative information (Mesmer-Magnus et al., 2012). Coping humor can also establish relations of avoidance and emotional distancing within small group dynamics, creating the social space necessary for members to negotiate shifting roles and identities while demonstrating conceptual fluency (Fiss & Laura, 2019; Plester, 2009). Humor in experiential learning serves as a balancing mechanism for navigating small group environments, as well as a coping mechanism across affective and cognitive dimensions of learning in high-stakes settings.

Entrepreneurial affect and cognitive learning Affect influences cognition in complex and messy ways. When situational outcomes yield successes, participants reflect positive affect—energy and happiness. On the other hand, when situational outcomes yield undesirable results, participants reflect negative affect—dejection and sadness. While neither positive nor negative affect has been found to play a uniformly beneficial or detrimental role in the entrepreneurial process (Baron, 2008), it is important for educators to create situational "signposts" which help learners navigate difficult, uncertain, or high-risk contexts to catalyze significant learning experiences (SLEs) about process and personal competence (Tunstall and Neergaard, 2021).

In this experiential EE context, students articulate their appreciation for the unique learning experience in both restaurant evaluation discussions and in their written reflections. During the debrief discussion, P4 shared, "I'm very impressed with how we performed [during the pop-up restaurant]. Good job to all of you, it was not possible without you." P3 concurred: "I think it went pretty smoothly. Even though we had a hiccup in the kitchen, honestly, there's always a hiccup in the kitchen. I would not have wanted to do this with any other team." P1 reported that student volunteers assisting in the pop-up restaurant observed that "everything is going so smoothly, everyone is feeding off your energy," attributing the positive experience to team members' preparation, assuming their proper roles, and fulfilling the responsibilities of those roles.

Students also comment on the value and transferability of the high-stakes experiential learning opportunity to plan and execute the pop-up restaurant. Reflecting on the night of the pop-up restaurant, P3 wrote, "I tend to learn better with hands-on training and not so much in a classroom. I know for a fact that this has opened my eyes to how a restaurant is created." P4 anticipated that the pop-up course design "allows us as students to gain entrepreneurial skills," sharing, "I believe that after the night of the pop-up restaurant it is an experience we will carry for a lifetime as we arrive close to graduation and move on in the industry." Holding up the custom

restaurant planning manual prepared by the instructor, P2 proclaimed: "This book is awesome. I love what you put in here. This is the formula [for new venture creation]." P1 reflected on the implementation module, "the joy, creativity, and process of total involvement was very much present in the third installment of the [pop-up]."

Affective coping strategies, including self-efficacy and optimism (Nahl, 2005), should remain integral components of high-stakes experiential learning course design. To accommodate entrepreneurial self-efficacy in collaborative experiential learning settings, educators must create opportunities for shared learning. This study bears out the value of an integrative approach to designing for entrepreneurial self-efficacy in team-based projects, engagement with experts, and reflective journal writing. This approach allows for integrative and reinforcing pedagogies (Rice & Stitt, 2019) which achieve (1) instructor insight into behavior observed in both teams and individual reflective writing and (2) evaluation of learning and development of the "whole person."

"Food chemistry":designing for high-stakes experiential EE in real-world settings

The realm of food chemistry, which studies biological and non-biological changes in food in response to controlled environmental stimuli, appropriately mimics students' immersive learning in real-world high-stakes experiential EE. Understanding the "chemical reactions" produced and reproduced by experiences and interactions of students can better inform and improve the design of HM curricula and syllabi in a way that supports key learning outcomes.

In this paper, we explore key characteristics of hospitality student managers' participation in an experiential EE capstone course project—commercialization of a pop-up restaurant business concept. By careful and deliberate abduction of ethnographic and artifact data, we present curated narratives of dialogues, experiences, and interactions among student managers in each of four course modules—ideation, design, launch, and evaluation—; and identify salient themes to improve design of high-stakes experiential EE in real-world settings. We find that even within high-stakes entrepreneurial EE contexts, designing to accommodate for humor, expert roles, balancing load-overload states, and optimizing entrepreneurial affect can lead to desirable entrepreneurial mindset, skills, and competencies.

The benefits of high-stakes experiential learning, which mirror the horrors and excitement of the hospitality industry, provide effective models for understanding the impact of entrepreneurial education on learners. Relating theory to practice, abiding coping humor, managing load–overload states, and attending to entrepreneurial affect can produce desired and important learning goals of entrepreneurial self-efficacy, resilience, optimism, and mindset in small group settings. These factors create a launch point for extending experiential designs for immersive learning outcomes which benefit business and management education and learning.

This study contributes to recent debates on philosophical and pedagogical issues in university-based entrepreneurship education (EE) research. By analyzing student dialogues, experiences, and interactions in a collaborative experiential EE hospitality context, we advance the legitimacy of cross-disciplinary models to study

university-based entrepreneurship education and collaborative experiential learning. With four curated vignettes derived from diverse qualitative sources, we both extend qualitative methodology and enrich the field's understanding of student-managers' experiences of immersive learning for business and management education.

Within these vignettes, we identify salient themes: theory-practice gaps, coping humor in load–overload states, and complex affective–cognitive interactions. By departing from purely neoliberal EE philosophies, we add much-needed insight into learners' socioemotional learning experiences. By designing and testing a cross-disciplinary collaborative experiential learning model in a high-stakes context, we offer educators and researchers design considerations for future teaching and research in experiential EE pedagogy.

Conclusions and future work

Future work should build on this study by replicating the design across other service-based disciplines such as nursing, healthcare, and community policing. In the post-COVID-19 world, the need to train and prepare emergency care workers for navigating high-stakes collaborative settings has never been greater. Similarly, cross-disciplinary collaborative learning designs for entrepreneurship-based criminal justice education could enhance socioemotional learning, further extending the value of cross-disciplinary models of experiential EE.

This study does not consider explicit analysis of learning outcomes, as the focus was primarily on understanding and analyzing student experiences (which do impact learning) in a redesigned capstone course. Future qualitative work could include learning outcomes as part of the analysis. Finally, future work which considers undergraduate business and management programs across different geographic or cultural regions, across cohorts, or across time, could be undertaken to better understand global implications for experiential EE designs.

Appendix A: Excerpt of abductive analysis of qualitative data

	Field Note	Abduction	*Defamiliarization*	*Alternative Casingv* Theoretical Frameworks	Implication for Practice
Phenomena of Interest	P1 presents Module 1 – Concept and Design... Chef's feedback stems from three major considerations: seasonality, prep kitchen constraints, and budget... P1 is noticeably quiet, mouth pursed, arms crossed over their chest.... Once instructor and Chef have left the classroom, P1 stands and opens up: "Guys, I'm literally about to breakdown crying, we're so far behind!" detailing how the team was supposed to finalize the menu and module 1 this week in order to move onto financial planning and module 2 during the coming week. P1 sits back down, covers her face and cries.	*Revisiting*	Data Codes	Theory-practice gap (Neal et al., 2015)	Engage industry experts to inject "practical wisdom" in learning design for high-stakes immersive entrepreneurship education and have strategies in place to manage the negative affective experience of the theory-practice gap.
Cognitive domain:		Analytical Memo	Construction of authority		
Use of subject matter expert		Areas of theoretical consideration:	Appeal to external authority		
Information-seeking beyond course materials		Team dynamics	Leadership/initiative		
Affective domain:		Leadership and "single point of failure"	Industry expertise – use of subject matter expert		

	Field Note	Abduction	*Defamiliarization*	*Alternative Casingv* Theoretical Frameworks	Implication for Practice
Evidence of negative affective states		"Alpha" tension between P1 and Chef	"Reality bites" [theory-practice gap]		
Self-reporting of negative affective states		Stress, anxiety, expectation management	Affective – negative – stress/anxiety		
Small group dynamics:		Linear versus non-linear thinking	Body language		
Leader role formation					
Evolution of group ideas			Affective – excitement		
Cognitive domain:	P1 explains that FOH staff have been meeting once or twice a week on Tuesdays and Thursdays, and asks whether BOH staff can meet at least once per week? P1 continues that "BOH can be excited that we go two cases of duck donated,...." The team engages in a lively discussion, excited at the increased budget prospects resulting from the duck breast donation.... P1 is taking notes throughout the session, and interjects into the discussion to confirm the spelling of a sponsor's name "for the summary email." As the team goes on to discuss the timeline leading up to the pop-up restaurant, they make reference to an inside joke: "The baby is coming!" P1 responds, "I almost put that in the email. But I didn't want to confuse people who don't come to the meetings."	Areas of theoretical consideration:	Affective – positive	Affective load (Nahl, 2005)	Intentional EE learning design must integrate and manage affective load in the cultivation of the entrepreneurial mindset.

Field Note	Abduction	*Defamiliarization*	*Alternative Casingv* Theoretical Frameworks	Implication for Practice
Creation and management of group deliverables	Humor	Production and management of group deliverables		
Affective domain:	And group formation	Humor – inside joke		
Constructive forms of engagement	Stress, anxiety, expectation management	Feminization of mental load in project management		
Evidence of positive affective states		Affective – positive		
Small group formation:		Affective - enthusiasm		
Evidence of engagement		Small group formation – role specialization		

	Field Note	Abduction	*Defamiliarization*	*Alternative Casingv* Theoretical Frameworks	Implication for Practice
Cognitive domain:	Within moments, students are staffing stations in the kitchen, and food prep is underway. They act purposefully, without talking; upbeat instrumental jazz fills the kitchen.... Chef then asks: "Everyone excited about tomorrow?... Anyone nervous about tomorrow?" Students converse briefly, but they are focused on their tasks.... The students have settled into their food prep tasks, and are engaged in side conversations. Students work in contended silence at their tasks. Chef opens the oven to check on the crème brulee, and someone exclaims: "That smells great!" A moment later, the buzzer sounds. P5 asks: "Is that all the brussels sprouts?" Chef confirms: "Yes, that's all the sprouts. Now we gotta do carrots!" P2 interjects: "Wait wait wait, do we want to keep the [carrot] heads on? Isn't that part of the display?"		Small group formation – task identification	Flow (Csikszentmihalyi, 2014)	Qualitative peer- and self-assessments provide outlets for students to reflect on the achievement of "flow" in their entrepreneurship education learning experience. Flow and its relationship to high-stakes experiential learning is an area of further exploration.
Depth of engagement			Small group formation - cooperation		
Creation and management of group deliverables		Areas of theoretical consideration:	Humor		
Affective domain:		Flow	Rapport		

Field Note	Abduction	*Defamiliarization*	*Alternative Casingv* Theoretical Frameworks	Implication for Practice
Constructive forms of engagement		Instructor – pride/satisfaction		
Evidence of positive affective states		Environment – upbeat		
Nonverbal behavioral cues		Environment – busy/productive		
Awareness of self, other, and team		Group dynamic – performing		
Small group dynamics:		FLOW		
Evidence of engagement		Group dynamic – storming		
Small group formation				
Group dynamic: forming, storming, norming, performing				
Task identification				
Role adoption				

	Field Note	Abduction	*Defamil-iarization*	*Alternative Casingv* Theoretical Frameworks	Implication for Practice
Cognitive domain:	We are greeted by Instructor, who glows with pride and satisfaction, keeping a smile on her face while she reveals that they had a crisis in the kitchen hours before the restaurant opened – P5, BOH lead, had an altercation with P2 and walked off the job around 3:30, returning attrite just before opening to resume their role in the kitchen. I remark that it is amazing how, in spite of this stress and disruption, the restaurant is running without a hitch so far as the dining guests are concerned. Chef appears, greets me and my dining partner, and requests to speak to Instructor: "Can we talk a minute?" They disappear through the guest entrance	Areas of theoretical consideration:		Affective load (Nahl, 2005) Coping humor (Mesmer-Magnus et al., 2012; Plester, 2009)	Recognizing the role of humor in mitigating affective overload and communicating conceptual fluency in purposeful pedagogy.
Creation and management of group deliverables		Affective load and overload			
Affective domain:		Humor			
Destructive forms of engagement					
Evidence of negative affective states					
Self-reporting of negative affective states					
Small group dynamics:					
Conflict resolution					

Field Note	Abduction	*Defamiliarization*	*Alternative Casingv* Theoretical Frameworks	Implication for Practice
Group dynamic: forming, storming, norming, performing				
Role adoption				

Declarations

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

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