

Integrated Project-Based Learning In Vocational Hospitality Education: Students' Perceptions And Experiences

Sang Ayu Made Krisna Dewi Natalia ^(1*) Raden Roro Rieta Anggraheni ⁽²⁾ I Made Rony Mulia Kusuma Putra ⁽³⁾ I Made Ojes Mahardika ⁽⁴⁾ I Komang Ardana ⁽⁵⁾

(1,2,3,4,5) Jurusan Pariwisata and Politeknik Negeri Bali, Bali & Indonesia

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* Corresponding author.
E-mail addresses: krisndewi@pnb.ac.id

KEYWORDS	ABSTRACT
Keywords: Integrated Project-based Learning; Students' Perceptions and Experiences; Vocational Hospitality Education; Hospitality Curriculum Integration Copyright ©2026 Vifada Journal of Education. All rights reserved	Purpose: This study examines students' perceptions and experiences of Integrated Project-Based Learning, which combines Bartending, Cost Control, and English for Food and Beverage Operation courses at a vocational higher education institution in Bali. Research Design and Methodology: An open-ended questionnaire was distributed to 25 students who had completed the integrated project. Responses were analyzed thematically using Braun and Clarke's approach. Findings and Discussion: Students viewed the project as an authentic simulation of food and beverage workplace demands. They reported developing technical, financial, and communication competencies, while also identifying challenges involving cognitive load, confidence in using English, and team coordination. Implications: These findings can inform the design of integrated PjBL curricula in vocational hospitality education. Future research could examine how such projects affect students' competency development over time and across different institutions.

1. Introduction

Bali remains one of Indonesia's most vital tourism economies, and its hospitality sector has shown sustained long-term growth alongside recent volatility. Recent economic analysis confirms that the tourism sector which is particularly the accommodation and food and beverage sub-sector remains the single largest contributor to Bali's regional economy, generating the highest gross value added among seventeen economic sectors and functioning as a key driver of employment and cross-sectoral demand (Weda & Dewi, 2025). Complementary evidence shows that growth in tourist arrivals and hospitality accommodation is significantly associated with regional economic growth and labor absorption in Bali, reinforcing the sector's structural importance to the provincial economy (Hutama et al., 2023). This growth has been widely linked to intensifying pressure on hotels to deliver consistently high-quality service, as the increasing volume of domestic and international visitors demands operational excellence across all guest-facing functions. More recent government statistics indicate that this momentum has continued into the post-pandemic period: Bali surpassed its target of 6.5 million foreign tourist arrivals in 2025, recording more than 7 million visitors with a 10.2% year-on-year increase, even as hotel occupancy rates declined by roughly 8%, signalling a market that is expanding in scale but becoming more competitive and quality-sensitive ((Badan Pusat Statistik Provinsi Bali, 2026); Dinas Pariwisata Provinsi Bali 2025). The broader Indonesian tourism and hotel market, valued at USD 32.8 billion in 2025, is projected to grow at a CAGR of 6.5% through 2030, with domestic tourism increasingly serving as a stabilizing force alongside international demand. Together, academic and

industry data point to the same conclusion: Bali's hospitality sector is growing in both volume and complexity, placing sustained pressure on vocational institutions to produce graduates who are immediately deployable across the interconnected demands of food and beverage service.

This pressure is compounded by a documented mismatch between vocational graduate competencies and industry needs in Bali. A recent evaluation using Importance-Performance Analysis found a significant gap between the competencies vocational graduates possess and those the tourism industry actually requires, with 35% of graduates reportedly struggling to secure employment matching their field of study (Sari et al., 2025). The same study identified interpersonal ability, professional demeanour, and entrepreneurial capacity as critical, underdeveloped attributes, alongside analytical and digital competencies needed to remain competitive. While this finding spans vocational tourism education broadly, it points to a deeper pedagogical issue: graduates may master isolated technical content without being able to integrate it the way real F&B operations demand.

In food and beverage (F&B) operations specifically, a competent bartender is expected not only to execute beverage preparation with precision, but also to understand the cost implications of each pour and to communicate fluently with international guests and colleagues, in Bali's case, arrive from an increasingly diversified set of source markets. In vocational higher education, however, these competencies are commonly taught as separate, segregated courses, such as Bartending, Cost Control, and English for Food and Beverage Operation, which each delivered by different instructors with little coordination among them. This fragmentation risks producing graduates who can perform isolated tasks but struggle to transfer and combine skills the way the industry actually requires, a risk made more acute by Bali's increasingly demanding, occupancy-sensitive hospitality market.

Project-Based Learning (PjBL) has been widely proposed as a pedagogical response to this kind of gap. As a student-centered approach in which learners construct knowledge and skills through sustained engagement with authentic, real-world tasks, PjBL has been associated with gains in critical thinking, collaboration, and employability-related competencies across a wide range of educational settings, a pattern confirmed by a recent meta-analysis showing that project-based, problem-based, and case-based learning consistently outperform traditional instruction in fostering student motivation (Wijnia et al., 2024). In higher education contexts more broadly, a recent systematic literature review of PjBL in engineering education similarly concludes that well-designed, appropriately scaffolded projects improve student outcomes across disciplines (Lavado-Anguera et al., 2024), while a recent quasi-experimental study replacing exam-based assessment with project-based assessment found significantly higher engagement, confidence, and academic performance compared with conventional instruction (Kldiashvili et al., 2025).

Within vocational and technical education specifically, PjBL has attracted growing attention as a bridge between classroom learning and workplace demands. Research in vocational hospitality programs has found that PjBL functions effectively as an experiential-learning pedagogy that supports students in acquiring both content knowledge and the personal agency needed for future employment (Green & du Plessis, 2023). Related work in hospitality management education has similarly argued that PjBL helps students develop teamwork, critical thinking, and communication skills that are directly valued by employers in the sector.

A smaller but important strand of literature has moved beyond single-course PjBL toward integrated or interdisciplinary project-based learning, in which a single project deliberately draws on content and skills from more than one course. Early work on problem-based hospitality management education documented a "Hotel Integration project" that combined perspectives from multiple stakeholders and disciplines, and argued that there remains a strong need for further research into interdisciplinary project-based learning within hospitality and tourism education specifically. Notably, recent action research on financial literacy instruction in vocational education similarly frames the classroom application of cost-related concepts as a project-based exercise, showing that students' financial literacy competency improves when costing tasks are made concrete, iterative, and tied to a tangible product rather than taught in a purely lecture-based format (Hamidah & Supadi, 2025).

Language instruction has evolved alongside broader educational shifts toward experiential and learner-centered paradigms. Within English for Specific Purposes (ESP), Project-Based Learning (PjBL) serves as a vital bridge connecting target-language acquisition, discipline-specific content, and real-

world problem-solving. Rather than treating English as an isolated set of grammar rules or decontextualized skills, PjBL positions the language as a functional tool for authentic communication within professional and academic domains. The dynamic nature of this approach is reinforced by recent qualitative research from Zhong et al., (2025). Their study highlights the nuanced, multifaceted perspectives of ESP learners, revealing that while students experience significant gains in language fluency, critical thinking, and professional readiness, they also navigate notable friction such as cognitive overload, collaboration hurdles, and the demands of self-directed project execution.

Despite this growing body of work, a clear gap remains. Existing studies tend to examine PjBL either within a single hospitality-related course, or across interdisciplinary projects that combine business, liberal arts, and general hospitality content, however studies that specifically integrate a technical bar-service skill (Bartending), a financial-management skill (Cost Control), and a language skill (English for F&B Operation) into one unified project appear to be largely absent from the literature, particularly within the Balinese vocational higher education context. Given that industry performance in F&B service inherently requires the simultaneous application of exactly these three competencies, and given Bali's documented graduate-competency gap, this represents a meaningful and underexplored research opportunity.

Equally important, much of the existing PjBL research in hospitality and vocational education relies primarily on outcome measures like test scores, skill checklists, or instructor ratings, while comparatively fewer studies center the student's own voice. Understanding how students perceive and experience an integrated project, including their motivation, difficulties in coordinating deliverables across three simultaneous course demands, and their sense of how the integration mirrors real workplace expectations, is essential for evaluating whether such a model is pedagogically sound and practically sustainable. Recent qualitative work investigating undergraduate students' perspectives and experiences of project-based learning offers a methodological precedent for this kind of inquiry, demonstrating that in-depth interviews can surface benefits, challenges, and nuances of PjBL implementation that quantitative outcome measures alone cannot capture (Mutanga, 2024).

It is within this context that the present study seeks to examine students' perceptions and experiences during the implementation of an integrated Project-Based Learning model that combines Bartending, Cost Control, and English for Food and Beverage Operation at a vocational higher education institution in Bali. By foregrounding the student perspective within Bali's high-growth, competency-sensitive hospitality labor market, this study aims to contribute both to the theoretical understanding of cross-course integration in vocational hospitality curricula and to practical recommendations for institutions seeking to close the gap between graduate competencies and industry expectations.

2. Research Design and Methodology

This study employed a qualitative descriptive design to explore students' perceptions and experiences during the implementation of an integrated Project-Based Learning (PjBL) model combining three hospitality courses such as Bartending, Cost Control, and English for Food and Beverage Operation at a vocational higher education institution in Bali. Data were collected using an open-ended questionnaire distributed to students, organized into five project groups, who had completed the integrated project. The instrument consisted of 28 open-ended questions covering students' initial impressions, their perceptions of the integration among the three courses, their technical and language-related experiences, their collaborative dynamics within groups, and their recommendations for improvement. A total of 29 responses were initially collected; after removing four duplicate submissions (identified through identical timestamps and fully identical response content), the final dataset comprised 25 unique student responses (n = 25).

Data were analyzed using thematic analysis following the six-phase framework of Braun & Clarke, (2022) updated practical guide to thematic analysis: familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. Coding was conducted by first mapping each response to its corresponding source question, then grouping related codes into broader thematic categories. This process yielded 21 codes organized into 11 thematic categories. The frequency of each code was calculated as the number of unique

respondents (out of $n = 25$) whose responses matched that code, reported as both raw counts and percentages. The complete coding table, including code definitions, source questions, frequencies, and representative quotations, is presented as a supplementary table

3. Findings and Discussion

a. Findings

Thematic analysis of the 25 student responses yielded 21 codes organized into 11 broader categories, summarized in Table 1. These categories are discussed below in relation to the sequence of the integrated PjBL experience: from students' initial perceptions, through the development of technical, financial, and language competencies, to the collaborative and culminating aspects of the project, and finally students' recommendations for improvement.

Table 1. Summary of thematic codes, categories, and frequencies

Category	Code	f (n=25)	%
1. Initial Perceptions	A1 Initial anxiety/confusion	13	52%
	A2 Initial enthusiasm/curiosity	12	48%
2. Perceived Integration & Authenticity	B1 Courses perceived as logically interconnected	7	28%
	B2 Project perceived as reflecting real workplace conditions	16	64%
3. Cognitive Load	C1 Difficulty managing three demands simultaneously	5	20%
4. English Development	D1 Perceived improvement in English ability	21	84%
	D2 Perceived little/no improvement	4	16%
5. English Difficulties	E1 Limited technical vocabulary	13	52%
	E2 Low confidence/nervousness	15	60%
	E3 Fluency issues/forgetting rehearsed lines	14	56%
6. Technical Skill Gains	F1 Improved bartending technique	21	84%
7. Cost Control Gains	G1 Improved cost/pricing understanding	10	40%
8. Teamwork Experience	H1 Positive, supportive collaboration	21	84%
9. Teamwork Challenges	I1 Disagreements/conflict occurred	11	44%
	I2 Uneven workload/free-riding	1	4%
	I3 Scheduling difficulties	5	20%
10. Presentation as Peak Experience	J1 Presentation/demonstration as most meaningful/challenging part	12	48%
11. Recommendations	K1 Clearer time management/instructions	12	48%
	K2 Facilities/equipment & material cost burden	10	40%
	K3 Assessment transparency	1	4%
	K4 Product standardization/cleanliness	3	12%

Source: Primary data, 2026.

The quantitative findings from the thematic analysis ($n=25$) reveal a comprehensive picture of student experiences across eleven distinct categories, balancing psychological shifts, skill development, group dynamics, and logistical needs. Initially, students were divided between feeling anxious or confused (52%, $f=13$) and enthusiastic or curious (48%, $f=12$). Despite early hesitations, 64%

(f=16) agreed that the project reflected authentic workplace conditions, though only 28% (f=7) viewed their underlying courses as logically interconnected. In terms of skill development, 84% (f=21) of respondents reported significant growth in both their English ability and technical bartending techniques, while 40% (f=10) gained a better understanding of cost and pricing control. Nevertheless, language delivery presented ongoing challenges; low confidence and nervousness affected 60% (f=15) of students, followed by fluency issues or forgetting rehearsed lines (56%, f=14) and limited technical vocabulary (52%, f=13). Cognitive load was a factor for 20% (f=5) of participants, who found it difficult to manage multiple project's demands simultaneously. Teamwork was predominantly positive, with 84% (f=21) experiencing supportive collaboration, although 44% (f=11) encountered disagreements or conflict, and 20% (f=5) faced scheduling difficulties. Free-riding was rarely an issue (4%, f=1). Additionally, 48% (f=12) viewed the final presentation or demonstration as the peak experience—the most meaningful yet challenging aspect of the module. To improve future iterations, students primarily recommended clearer time management and instructions (48%, f=12), alongside better support for facilities, equipment, and material costs (40%, f=10). Minor suggestions included product standardization and cleanliness (12%, f=3) and increased assessment transparency (4%, f=1).

b. Discussion

Initial Perceptions: From Apprehension to Curiosity

Students' initial reactions to the integrated project were divided almost evenly between apprehension and enthusiasm. Slightly over half of the respondents (52%) described their first impression using words such as “*kaget*” (shocked), “*bingung*” (confused), or “*takut*” (afraid), typically attributing this to the unfamiliar demand of combining three courses into a single deliverable, as one student explained: “*Kesan pertama saya... jujur kaget dan ada sedikit ketakutan karena kelihatannya cukup sulit dan banyak yang harus disiapkan. Soalnya project ini gabung tiga mata pelajaran sekaligus.*” Nearly as many students (48%), however, reported curiosity or excitement from the outset. This mixed initial reaction is consistent with recent meta-analytic evidence that project-based, problem-based, and case-based learning, precisely because they depart from familiar lecture-based instruction that tend to be perceived as demanding at first, particularly among students encountering self-directed, multidisciplinary work for the first time, even as these approaches ultimately yield stronger motivational outcomes than traditional instruction (Wijnia et al., 2024).

This initial apprehension can be further understood through self-efficacy theory, which holds that individuals' confidence in their ability to execute a task is shaped largely by prior mastery experience with similar tasks, and that this self-efficacy is a key predictor of student success in higher education settings (Moussa, 2023). Because this was the first time these students had been asked to complete a project spanning three simultaneously assessed courses, most had no comparable prior mastery experience to draw on, which plausibly explains the initial dominance of anxiety-related language over confidence-related language. Notably, this pattern is not static: self-efficacy theory would predict that as students accumulate mastery experiences over the course of the project which were successfully mixing a drink, correctly calculating a cost, communicating clearly in English that their self-efficacy, and consequently their confidence, should rise. This trajectory is indeed visible later in the dataset, where the same students who reported initial fear describe pride and confidence by the project's conclusion (see the discussion of the culminating presentation below), suggesting that the project itself functioned as a series of mastery experiences that gradually restructured students' self-efficacy beliefs.

The initial difficulty can also be interpreted through Vygotsky's Zone of Proximal Development (ZPD), which distinguishes between what a learner can accomplish independently and what they can accomplish with appropriate guidance or scaffolding. A recent systematic review confirms that adequately scaffolded tasks positioned within a learner's ZPD improve problem-solving performance and learning outcomes, whereas insufficient scaffolding leaves learners unable to close the gap between current and target competence (Raslan, 2024). An integrated project spanning three previously separate courses inherently sits further from students' independent capability than any single-course task, which may explain why the task was initially perceived as “*rumit*” (complex) or “*berat*” (heavy) by multiple respondents. Viewed through this lens, the apprehension reported here is

not necessarily a design flaw but an expected feature of a task deliberately positioned within, or slightly beyond, students' current ZPD that provided sufficient scaffolding (clear instruction, staged milestones, instructor support across all three courses) is available to help students close that gap over the course of the project. This reading also connects to Kolb's experiential learning cycle, in which the initial "concrete experience" stage of encountering a new, complex, real-world task is frequently accompanied by disequilibrium or discomfort; a recent systematic review of Kolb's cycle in higher education similarly emphasizes that a genuine, embodied concrete experience is a necessary starting point from which reflective observation and abstract conceptualization can follow, rather than a stage to be minimized or avoided (Henríquez et al., 2025).

A complementary explanation is offered by flow theory, which frames anxiety and engagement as two ends of a continuum shaped by the perceived balance between task challenge and personal skill. A recent longitudinal study of project-based learning in higher education directly tracked students' emotional trajectories across a feedback-rich, project-based course and found that negative states such as worry and anxiety dominated the early weeks, before giving way to arousal and flow at the project's midpoint, and finally to control and relaxation as the course concluded (Brezovnik et al., 2026). This empirically documented trajectory closely parallels the pattern observed in the present study: at the outset of the integrated project, when perceived challenge (an unfamiliar, three-course integrated task) substantially exceeded students' perceived skill, an anxiety-dominant state would be theoretically expected which was consistent with the 52% of responses coded under initial anxiety/confusion, while the pride and satisfaction later reported around the culminating presentation mirrors the shift toward flow, control, and relaxation documented in that study. For the subset of students whose difficulties centered specifically on the English-language component, recent research on foreign language anxiety in higher education offers an additional, language-specific lens: anxiety functions as an affective filter that creates barriers to effective communication and reduces self-confidence, particularly around productive skills such as speaking (Özdemir & Seçkin, 2025). This helps explain why several students' reported English-related difficulties (see the following section) were framed less as a lack of knowledge and more as an inability to access what they knew under pressure as a pattern consistent with an elevated affective filter during unfamiliar, high-stakes performance situations.

Taken together, these complementary and recent theoretical perspectives suggest that the initial apprehension documented in this study should not be read simply as a negative outcome to be minimized, but as a natural and theoretically anticipated response to a deliberately challenging, integrative task in which according to self-efficacy and experiential learning research alike, is precisely the kind of productive discomfort from which durable competence and confidence gains are expected to emerge. Notably, several students explicitly linked their initial apprehension to the fact that their cohort was the first to undertake this particular integrated format, adding a sense of both pressure and novelty; this pioneering-cohort status may have amplified the uncertainty inherent in encountering a task with no prior institutional precedent or peer testimony to draw on.

Perceived Integration and Authenticity

The most strongly and consistently expressed perception across the dataset was that the integrated project authentically mirrored real workplace conditions in the hospitality industry: 64% of students explicitly compared the project to actual hotel or restaurant operations, and 28% specifically praised the logical interconnection among the three courses. One student summarized this succinctly: *"Di dunia kerja kita tidak hanya sekedar membuat minuman saja, tetapi juga harus bisa menjelaskan ke tamu dengan baik dan mengetahui cara menghitung modal serta harga jualnya"* (In the real workplace we do not just make drinks, but must also be able to explain them well to guests and understand how to calculate cost and selling price). This finding directly corroborates earlier calls in the hospitality education literature for further research into interdisciplinary project-based learning, following early documentation of similar "Hotel Integration" projects that combined multiple stakeholder perspectives within a single deliverable. It also aligns with research on PjBL in TVET hospitality education, which found that project-based approaches function effectively as experiential pedagogy bridging classroom learning and workplace demands (Lourens & Catharina, 2023).

The relative weighting of these two codes that authenticity/real-world reflection (64%) outweighing logical interconnection between subjects (28%) is theoretically informative rather than incidental. A recent scoping review of student experiences across interdisciplinary science projects found that the specific model of interdisciplinary delivery had comparatively little effect on student engagement, whereas student satisfaction improved significantly when the project task itself was rated as authentic, regardless of how the disciplines were structurally combined (Hart and Bone 2022). In other words, it is authenticity that correspondence between the task and real professional practice appears to drive positive perception, more so than the formal fact of subject interconnection. This distinction matters for interpreting the present findings: students in this study were, in effect, responding more strongly to the authenticity of simulating a real F&B service scenario than to the administrative fact that three courses had been combined on paper, which suggests that the pedagogical value of integrated PjBL lies less in curricular integration as a structural exercise and more in the realism of the task it enables.

This interpretation is further supported by recent theoretical work on authentic learning, which conceptualizes authenticity not as a fixed property of a task but as a perceived correspondence between a learning activity and the practices, tools, and social context of a genuine professional or disciplinary community with a perception that is itself a key driver of motivation, deeper engagement, and positive learning outcomes (Nachtigall & Wirth, 2024). Framed this way, the integrated bartending-cost control-English project succeeded in students' eyes not simply because it combined three syllabi, but because it recreated the social and professional context of an actual F&B service encounter: a guest to be served, a cost to be justified, and a product to be explained in the same triad of demands a working bartender would face on any given shift. Comparable evidence comes from a recent study of an industry-enriched, interdisciplinary PBL framework in higher education, in which the large majority of students (92%) reported valuing the authentic workforce insight the approach provided, with behavioral and interpersonal competencies rated even more highly than narrowly technical skills (Naseer et al., 2025). This pattern closely mirrors the present findings, where students' authenticity-related comments frequently emphasized guest communication and professional demeanor alongside technical drink-making, suggesting that, across quite different institutional and disciplinary contexts, students consistently register the value of integrated PjBL primarily through its capacity to simulate the relational and behavioral realism of the target workplace, not merely its technical content.

Taken together, this body of recent evidence suggests that the strength of the authenticity theme in this dataset is not an idiosyncratic artifact of the Balinese hospitality context, but a pattern consistent with a broader, emerging finding in the interdisciplinary and industry-linked PjBL literature: that perceived authenticity, rather than curricular interconnection alone, is the primary mechanism through which integrated projects earn students' engagement and endorsement. For curriculum designers, this implies that future iterations of the integrated Bartending-Cost Control-English project should prioritize preserving and deepening the realism of the simulated service encounter, for instance, through real guest interactions, live costing constraints, or industry-partner evaluation with over simply formalizing the administrative linkage between the three courses.

Cognitive Load in Managing Three Integrated Demands

A smaller but analytically important theme (20%) was the explicit recognition of cognitive load associated with performing three tasks simultaneously. As one student described: *"Proyek ini juga memaksa saya untuk tidak hanya fokus pada satu keahlian aja, tapi harus bisa menghubungkan cara meracik minuman, cara menghitung modal, dan cara menjelaskannya dalam bahasa inggris secara bersamaan"* (This project forced me not to focus on just one skill, but to connect mixing techniques, cost calculation, and English explanation all at once). Although mentioned by a minority of students, this theme is conceptually significant because it identifies the specific mechanism which are simultaneous, multi-domain performance that distinguishes integrated PjBL from single-course PjBL. This is consistent with the observation that well-designed project scaffolding is necessary to manage the cognitive demands of complex, multi-outcome projects in higher education (Raslan, 2024), and

suggests that future iterations of the project may benefit from more explicit scaffolding to help students sequence rather than simultaneously juggle these three demands.

This modest but conceptually important theme can be further situated within Cognitive Load Theory (CLT), which distinguishes intrinsic load (the inherent complexity of a task), extraneous load (load imposed by how a task is presented), and germane load (load devoted to schema construction). Recent applications of CLT to workplace-based and practice-based learning environments show that when learners must integrate several interdependent skill domains under real-time, real-world constraints, intrinsic load rises accordingly, and effective learning depends on instructional design that manages extraneous load so that learners' limited working-memory capacity can be devoted to genuine skill integration rather than incidental confusion (Tabatabaee et al., 2024). Applied to the present study, the demand to mix a drink, track its cost, and narrate it in English within the same live performance episode represents precisely this kind of high-intrinsic-load, multi-domain integration task; the fact that only 20% of students explicitly named this burden, despite its structural inevitability, may indicate that most students absorbed it as manageable intrinsic load rather than debilitating extraneous load with a signal that the project's current level of scaffolding and rehearsal was largely, though not universally, adequate to the task's cognitive demands.

Development of English Communication Skills

A large majority of students (84%) reported that their English ability improved through the project, frequently attributing this to the contextual and consequential nature of the language use involved, rather than decontextualized classroom practice: *"Saya menjadi lebih berani berbicara di depan umum dan lebih terbiasa menggunakan Bahasa Inggris dalam konteks yang nyata, bukan hanya di dalam buku"* (I became braver speaking in public and more accustomed to using English in a real context, not just in a textbook). At the same time, specific and recurring difficulties were identified: limited technical vocabulary for describing ingredients and flavors (52%), low confidence or nervousness (60%), and fluency breakdowns or forgetting rehearsed explanations under pressure (56%). These findings mirror those of recent qualitative research on PjBL within English for Specific Purposes (ESP) classrooms, which similarly found that students hold multifaceted views of project-based language learning, reporting simultaneous gains in confidence alongside persistent, task-specific language challenges. Taken together, these results suggest that integrating English instruction into an authentic F&B task successfully increased students' willingness to communicate, even though it did not fully resolve underlying vocabulary and fluency limitations, pointing to a need for more targeted vocabulary scaffolding (e.g., glossaries of tasting and mixology terms) in future iterations.

These results are consistent with recent quasi-experimental research showing that project-based approaches to speaking instruction significantly improve both fluency and anxiety reduction among EFL learners, precisely because the language is rehearsed and produced in service of a concrete, personally meaningful outcome rather than as an isolated grammar or vocabulary exercise (Rahmaniah et al., 2025). The specific difficulties identified here also closely mirror a recent needs analysis of English speaking competence among Indonesian vocational students, which found that 71% of respondents reported vocabulary limitations and 79% reported low confidence and speaking anxiety, proportions strikingly close to the 52% and 60% found in the present sample (Kurniawan et al., 2026). The convergence of these two independently collected datasets, from different vocational contexts, suggests that vocabulary gaps and speaking anxiety are not idiosyncratic to this cohort or this integrated project, but represent a broader, recurring bottleneck in vocational English instruction across Indonesia that is one that integrated, task-embedded practice appears to alleviate but not fully resolve, reinforcing the case for supplementary, targeted vocabulary and confidence-building support alongside the project itself.

Development of Technical and Financial Competencies

Students frequently reported concrete skill gains in both bartending technique (84%) and cost control understanding (40%). Regarding technical skills, one student reflected: *"Teknik dimana saya harus tidak terlihat kaku, dimana saya belum pernah sama sekali membuat minuman"* (The technique of not appearing stiff, since I had never made a drink before). Regarding financial literacy, another student captured the integrative intent of the project directly: *"Teknik yang bagus di bar tidak akan*

sempurna tanpa perencanaan biaya yang matang dan komunikasi yang baik ke guest” (Good bar technique will not be complete without careful cost planning and good communication with the guest). This finding is particularly noteworthy because it echoes, from the student perspective, recent pedagogical work that explicitly frames the classroom application of cost-related theory as an iterative, project-based exercise rather than a purely lecture-based subject (Hamidah & Supadi, 2025). The comparatively lower frequency for cost-control gains (40%) relative to technical bartending gains (84%) may indicate that the financial component, while valued, was perceived as less central or less thoroughly internalized than the hands-on technical component as an area worth probing further in future cycles of the project.

The gap between technical (84%) and financial (40%) skill gains identified here also resonates with recent action-research evidence from vocational accounting and finance education, which found that project-based instruction significantly improved students' financial literacy competency only when the financial task was made concrete, iterative, and tied to a tangible product with gains that developed gradually across successive project cycles rather than emerging immediately from a single exposure (Hamidah & Supadi, 2025). Because the integrated project in the present study embedded cost control within a single bartending cycle rather than multiple iterative rounds of costing practice, students' comparatively lower rate of self-reported financial gain may reflect not a weakness in the pedagogical design itself, but simply the shorter learning curve typically required for durable financial competency to consolidate relative to a physical, repeatable motor skill such as drink-mixing, suggesting that future iterations might benefit from multiple, smaller costing cycles (e.g., costing several draft recipes before the final product) rather than a single costing exercise tied to one final beverage.

Collaborative Learning: Benefits and Challenges

Teamwork was described positively by a large majority of students (84%), who valued the opportunity to exchange ideas and divide responsibilities. However, a substantial minority also reported disagreements or conflict within their groups (44%), most commonly regarding creative decisions such as drink concepts, which students generally described resolving through discussion and compromise. A smaller number of responses (20%) pointed to difficulty coordinating schedules across group members with differing availability, and one response specifically raised the issue of uneven contribution: *“Sangat sulit ketika ada anggota yang kurang memiliki kesadaran diri untuk berkontribusi, sementara saya sendiri merasa sungkan jika harus menegur terus-menerus”* (It is very difficult when a member lacks self-awareness to contribute, while I myself feel reluctant to keep reminding them). Although reported by only one respondent explicitly, this free-riding concern is a well-documented risk in project-based and collaborative learning more broadly, and its presence, even at low frequency, suggests that peer- or self-assessment mechanisms could be a useful addition to strengthen individual accountability within group-based integrated projects.

The uneven-contribution concern raised here, while numerically rare in this dataset, is a well-studied and persistent problem in the broader group-project literature. A recent large-scale preference study of free-riding in higher education group projects found that students consistently rank three design features as most effective in reducing free-riding: allowing self-selected rather than random team formation, incorporating one or two peer process evaluations during (not only after) the project, and keeping team sizes as small as feasible (Benning, 2024). None of these three safeguards was explicitly reported as present in the current project design, which may help explain why, despite the low raw frequency of explicit free-rider complaints, the underlying structural conditions for free-riding (fixed group assignment, single end-of-project evaluation) were nonetheless in place. This suggests a concrete, low-cost refinement for future iterations: introducing a brief, structured mid-project peer contribution check-in, which the literature indicates is disproportionately effective at surfacing and correcting uneven workload before it hardens into resentment or disengagement.

The Culminating Presentation as a Transformative Experience

Nearly half of the students (48%) identified the final presentation and demonstration as the most meaningful, and simultaneously most challenging part of the project, describing a shift from nervousness to pride within a single episode: *“Bagian yang paling bermakna bagi saya adalah saat*

presentasi dan demonstrasi di depan kelas... Walaupun sempat merasa gugup, saya merasa bangga karena bisa tampil dan menyelesaikan tugas dengan baik" (The most meaningful part for me was the presentation and demonstration in front of the class... Although I felt nervous, I felt proud to be able to perform and complete the task well). This culminating moment functioned, in effect, as an authentic, integrated assessment event in which technical execution, cost justification, and English communication had to be performed together in real time, arguably the clearest single point at which the pedagogical intent of the integrated project was realized and recognized by students themselves.

This nervous-to-proud emotional arc surrounding oral performance is well documented in recent applied linguistics research. A large mixed-methods study of EFL learners' oral presentations found that anxiety and enjoyment routinely co-occur within the same presentation event rather than representing opposite ends of a single continuum, with learners frequently reporting simultaneous nervousness and a sense of accomplishment immediately afterward, particularly when the presentation had been well rehearsed and tied to a concrete, personally invested task (Ding et al., 2024). This helps explain why, in the present dataset, the presentation was named simultaneously as the most challenging and the most meaningful part of the project by the same respondents rather than by two separate subgroups, the co-occurrence of anxiety and pride is not a contradiction to be resolved, but the expected signature of a high-stakes, authentic performance task that students were nonetheless well prepared for. Pedagogically, this reinforces the value of retaining a live, integrated demonstration as the project's capstone, since it is precisely this format; rather than a written report alone, that appears to generate the strongest sense of accomplishment reported anywhere in the dataset.

Students' Recommendations for Program Improvement

When asked what should be improved if the project were repeated, students' responses clustered around four practical concerns: clearer and more stable time management and instructions (48%), insufficient facilities/equipment and the burden of material costs falling on students themselves (40%); a concern echoed in recent research showing that deliberately integrating information and communication technologies into project-based vocational courses can meaningfully raise students' satisfaction, motivation, and participation, suggesting that better-resourced technological and physical infrastructure could similarly strengthen this integrated project (Doğantan, 2025), a desire for greater transparency in assessment criteria (4%), and inconsistent product standardization or cleanliness of the practice space (12%). One student's comment captured the compounding effect of being the pioneering cohort: "*Karena kami adalah angkatan pertama yang melakukan project ini, jadi tentu banyak hal yang perlu di perbaiki... salah satunya mungkin dari informasi yang tidak berubah-ubah*" (Because we are the first cohort to do this project, there are certainly many things to improve... one of them is perhaps information that does not keep changing). These recommendations, while modest in frequency for some codes, offer direct and actionable implications for institutions seeking to refine similar integrated PjBL models, particularly regarding advance planning, cost-sharing arrangements, and standardized rubrics communicated at the outset of the project.

These student-generated recommendations align closely with findings from recent research on PjBL implementation barriers more broadly, which consistently identifies limited time, insufficient infrastructure, and unclear advance planning as the most frequently reported obstacles to effective project-based learning across educational levels and disciplines (Meng et al., 2023). The recurrence of these same categories; time, resources, and planning clarity, in both the present dataset and the broader implementation literature suggests that the difficulties students identified are not unique shortcomings of this particular integrated project, but predictable, well-documented growing pains of PjBL implementation in general, for which established mitigation strategies (advance publication of project timelines, institutional co-funding of consumable materials, and rubric-sharing prior to project launch) already exist in the literature and could be directly adapted for future iterations of the Bartending-Cost Control-English integrated project.

Overall, these findings suggest that students perceived the integrated PjBL model combining Bartending, Cost Control, and English for Food and Beverage Operation as an authentic and

pedagogically coherent simulation of real F&B workplace demands, one that fostered gains in technical, financial, and communicative competence alongside collaborative skills, while also surfacing specific, addressable frictions related to cognitive load, language confidence, team coordination, and logistical support. These results extend the existing literature on PjBL in vocational hospitality education, which has largely examined single-course applications, by providing empirical, student-centered evidence for the feasibility and perceived value of a three-course integration model within a Balinese vocational higher education context.

Conclusion

This study examined vocational hospitality students' perceptions and experiences during the implementation of an integrated Project-Based Learning model combining Bartending, Cost Control, and English for Food and Beverage Operation in Bali. Thematic analysis of open-ended questionnaire responses from 25 students revealed that, despite initial apprehension, students overwhelmingly perceived the integrated project as an authentic reflection of real hospitality workplace demands, and reported meaningful gains in technical bartending skill, cost-control understanding, English communication confidence, and collaborative competence. At the same time, students identified specific challenges that the cognitive load of managing three domains simultaneously, persistent English vocabulary and fluency difficulties, uneven team contribution, and logistical/financial constraints, that offer concrete, student-informed direction for refining future iterations of the model. These findings suggest that integrated PjBL is a pedagogically promising, though logistically demanding, approach for vocational hospitality curricula, and contribute empirical grounding to the still-limited literature on multi-course integration within vocational hospitality education, particularly in the Balinese context.

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