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A Thematic Review and Synthesis of Empirical Studies Connecting the Production-Oriented Approach and Moso Teach in EFL Blended Learning

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Abstract

Tertiary English as a Foreign Language (EFL) instruction in Mainland China has historically been paralyzed by the structural dilemma of separating learning from language use, often resulting in "mute English." To systematically address this inefficiency, this comprehensive thematic review synthesizes contemporary empirical literature exploring the integration of the Production-Oriented Approach (POA) with the Moso Teach digital platform. Utilizing rigorous methodological appraisal frameworks, the study analyzes how the platform's multimodal technological affordances effectively operationalize the POA's cyclical motivating, enabling, and assessing phases. The synthesized findings demonstrate that this synergistic blended model yields statistically significant enhancements in both overarching academic achievement and the mastery of complex higher-order linguistic skills. Furthermore, the platform's gamified Experience Points (EXP) system successfully operationalizes behavioral engagement, fostering deep intrinsic motivation and enduring learner autonomy. However, the review cautions that instructional success is strictly governed by critical boundary conditions, most notably the quality of teacher mediation and the precise calibration of cognitive load. The paper concludes by providing actionable pedagogical recommendations and proposing future research trajectories involving Generative AI and advanced learning analytics.

Keywords

Production-Oriented Approach, Moso Teach, Blended Learning, Thematic Review, EFL Instruction

1. Introduction

Motivation and effective pedagogical scaffolding have long been recognized as the constitutive, integrally linked determinants of success in second language acquisition, particularly within the highly formalized contexts of adult higher education. Within the specific landscape of English as a Foreign Language (EFL) and English as a Second Language (ESL) instruction in tertiary institutions in Mainland China, these two elements dynamically interact to shape learners' classroom engagement, cognitive persistence, and ultimate academic achievement. However, tertiary foreign language education in Mainland China has historically been paralyzed by a deeply entrenched structural pedagogical dilemma, widely diagnosed by scholars as the separation of learning and language use (Wen, 2018; Chen & Li, 2021).

For decades, traditional pedagogical paradigms have overwhelmingly favored a teacher-centered, input-driven methodology. In these conventional, text-centric models, students are routinely inundated with extensive lexical, syntactic, and grammatical inputs through intensive reading and listening decontextualized practices. However, despite mastering complex grammatical rules and accumulating vast vocabularies to pass high-stakes standardized exams like the College English Test (CET), these same learners remain systematically unequipped to mobilize this inert knowledge within authentic, high-stakes communicative scenarios or rigorous academic discourse. This structural inefficiency, often colloquially referred to as "mute English," not only results in the suboptimal and highly inefficient allocation of educational resources but also undermines the intrinsic motivation of adult learners. When students experience a profound, persistent disconnect between classroom input and real-world linguistic utility, their motivation rapidly deteriorates from an intrinsic desire for communicative competence to mere extrinsic compliance with syllabus requirements (Wen, 2015; Sun & Asmawi, 2021).

To systematically overcome this localized pedagogical bottleneck and reconceptualize the framework of language learning, the production-oriented approach (POA) was rigorously developed, empirically tested, and iteratively refined by Chinese linguistic scholars over the past decade (Zhang, 2016). Breaking decisively away from the linear "input-first, output-later" orthodoxy that has characterized Western communicative language teaching for a generation, the POA deliberately and radically inverts the traditional pedagogical sequence. It posits that language production should act simultaneously as the primary catalyst, the pedagogical medium, and the ultimate objective of the learning process (Wen, 2018; Xing & Puteh, 2023).

The POA theoretical framework is anchored by three foundational pedagogical principles: the "learning-centered" principle (challenging the purely student-centered conceptions by insisting all activities must yield measurable learning), the "learning-using integration" principle (advocating the elimination of the temporal gap between acquiring a form and deploying it), and the "whole-person ed-

ucation" principle (emphasizing humanistic and ideological development alongside linguistic gains). These principles govern three core pedagogical hypotheses: "output-driven," "input-enabled," and "selective learning." Finally, these constructs are operationalized through a rigorous, teacher-mediated pedagogical workflow comprised of three phases: motivating, enabling, and assessing (Wen, 2015). By engineering a state of "cognitive gap" through highly challenging initial production tasks, the POA compels learners to recognize their specific linguistic deficits, thereby transforming subsequent, targeted input into highly salient, actively internalized cognitive scaffolding rather than cognitive noise (Sun, 2022).

Concurrently with the pedagogical maturation of the POA, the advent of educational modernization and digital transformation, alongside the rapid acceleration of Mobile-Assisted Language Learning (MALL), has catalyzed a profound paradigm shift in how pedagogical spaces are conceptualized and mediated. Smart mobile teaching platforms, most notably Moso Teach Cloud Class (commonly known as Mosoink), have emerged as the dominant digital infrastructure for implementing Small Private Online Courses (SPOCs) and Online-to-Offline (O2O) blended learning models in higher education (Cheng & Yang, 2017). Moso Teach provides an expansive, highly integrated suite of technological affordances—ranging from multimodal resource distribution, intelligent polling, and lightweight live streaming to granular learning analytics and gamified experience points systems (Wang & Zhang, 2020). From a constructivist and socio-cultural perspective, these dynamic digital environments offer the socio-technical infrastructure required to sustain collaborative meaning-making, collaborative peer interaction, and the continuous formative assessment loops that modern pedagogy demands (Kyei-Akuoko et al., 2025).

Despite the inherent potential of the POA theoretical framework and Moso Teach cloud technology, the extant empirical literature examining their deep, systemic integration remains highly fragmented and conceptually siloed. POA-centric studies frequently narrowly focus on the micro-linguistic achievements of specific enabling tasks—such as the acquisition of grammatical metaphors or academic nominalization—without adequately addressing the logistical constraints of executing high-frequency, individualized assessments in large-enrollment classes (Chen & Wen, 2020). Conversely, technology-centric studies often reduce the digital platform implementation to superficial participation metrics, analyzing sign-in rates and resource click-throughs while largely overlooking the deep pedagogical mechanisms required to convert digital engagement into substantive, durable linguistic development (Zhao & Yao, 2019). This theoretical-technological bifurcation deprives educational practitioners and curriculum designers of the cohesive, evidence-based blueprints necessary to seamlessly fuse advanced digital tools with localized pedagogical innovations.

Consequently, there is a pressing need to transition from fragmented empirical reporting to a cohesive, comprehensive thematic synthesis. This paper aims to systematically map the conceptual, methodological, and empirical intersections

between the POA and Moso Teach. By analyzing a wide range of empirical interventions, this study addresses several overarching lines of inquiry. First, it investigates how the theoretical mechanisms and hypotheses of the POA are operationalized through the specific technological affordances of the Moso Teach platform. Second, it synthesizes the aggregated empirical evidence regarding the impact of this blended model on specific linguistic competencies, higher-order cognitive skills, and holistic academic achievement. Third, it explores the specific mediating variables—such as learner autonomy, gamification mechanics, and teacher feedback cycles—through which this technology-enhanced pedagogical model exerts its transformative influence on the EFL learning ecology.

2. Methods

To construct a comprehensive, scientifically rigorous, and nuanced synthesis of the intersection between the POA and Moso Teach, this review utilizes a systematic thematic review and synthesis framework. This robust methodological approach allows for the structured aggregation, critical appraisal, and cross-validation of both quantitative achievement metrics and qualitative process data extracted from a diverse range of educational interventions.

2.1. Search Strategy and Inclusion/Exclusion

The corpus assembly process employed a systematic, dual-phase search strategy to ensure the capture of both foundational empirical literature and contemporary intervention models shaping the field. Initially, a foundational corpus was established utilizing primary texts and systematic reviews that document the theoretical frameworks of the POA and the core technological affordances of Moso Teach within the Chinese higher education context. To expand this foundational baseline, a supplementary electronic search was executed across major international and regional academic databases. The targeted databases included Scopus, the Web of Science Core Collection, and the China National Knowledge Infrastructure (CNKI), encompassing peer-reviewed literature published over a ten-year timeframe from 2015 to 2025 (He & Li, 2025).

The search syntax was constructed using a combination of controlled vocabulary (such as ERIC descriptors where applicable) and free-text terms. The Boolean logic mapped constructs related to pedagogy ("Production-Oriented Approach" OR "POA" OR "output-driven hypothesis"), technology ("Moso Teach" OR "Cloud Class"), delivery modalities ("blended learning" OR "O2O" OR "hybrid teaching" OR "SPOC"), and target demographics ("EFL" OR "ESL" OR "college English" OR "tertiary language education").

The initial search across all targeted databases yielded a total of 1291 records. After the removal of 93 duplicates and the initial exclusion of 817 records that were clearly not focused on POA in education, 381 unique titles and abstracts were screened for initial relevance. This screening phase resulted in the exclusion of 171 records that clearly did not align with the research scope. The full texts of the

remaining 210 articles were then retrieved and subjected to a rigorous evaluation against established inclusion and exclusion criteria.

To ensure the synthesis remained firmly grounded in empirical evidence, four specific inclusion criteria were systematically applied. First, the study had to employ an empirical research design, which could include randomized controlled trials, quasi-experiments with pre- and post-testing, mixed-methods action research, or correlational studies utilizing platform analytics. Second, target populations were restricted to tertiary-level ESL/EFL learners, encompassing general college English students, English majors, or students in English for Specific Purposes (ESP) and academic writing programs. Third, the intervention had to feature an explicit, documented implementation of POA pedagogical phases in direct conjunction with Moso Teach functions, or present highly detailed, distinct interventions of either component that provided significant comparative value to the synthesis. Fourth, the study was required to report quantifiable learning outcomes (such as standardized test scores) or methodologically sound qualitative analyses of language development.

During the full-text review, 183 articles were excluded. The primary reasons for exclusion were: conceptual position papers lacking empirical data (19 studies), anecdotal teaching reflections without baseline measurements (103 studies), and studies focused on non-language disciplines lacking an explicit English-medium instruction component (61 studies). Ultimately, 27 peer-reviewed studies met all criteria and were included in the final thematic synthesis. A comprehensive summary of the included studies' contexts, demographic samples, and specific outcomes is provided in Appendix A to facilitate rapid assessment of coverage and comparability.

To clarify the conceptual definition of "integration" for study eligibility, it was necessary to capture both the isolated baseline effects of each component and their synergistic effects. Consequently, the final corpus of 27 studies was explicitly categorized into three distinct groups:

a) Integrated Studies (n = 1): Studies explicitly aligning POA pedagogical phases with Moso Teach digital features to evaluate synergistic blended learning.

b) POA-Only Studies (n = 16): Studies strictly implementing the POA framework without Moso Teach, provide critical baseline data on the approach's isolated impact on micro-linguistic achievements.

c) Moso Teach-Only Studies (n = 10): Studies utilizing Moso Teach without the POA framework offer foundational metrics on how the platform's affordances influence general behavioral engagement and participation.

2.2. Appraisal of Research Rigor

Given the inherent heterogeneity of educational research—which frequently relies on intact classrooms, convenience sampling, and quasi-experimental designs rather than strictly controlled randomized trials—evaluating the methodological rigor of the included studies is paramount to ensuring the internal validity and re-

liability of the synthesis. The appraisal of research quality was guided by established frameworks, specifically drawing upon the Mixed Methods Appraisal Tool (MMAT) and the Joanna Briggs Institute (JBI) critical appraisal checklists for systematic reviews and quasi-experimental studies (Brackett & Batten, 2020; Chuane, 2025; Peng & Raman, 2026).

For quantitative and quasi-experimental studies, rigor was assessed based on several key methodological standards. Primary emphasis was placed on establishing baseline equivalence between experimental and control groups prior to the intervention, ensuring that post-intervention differences could be confidently attributed to the pedagogical model rather than preexisting disparities in language proficiency. Furthermore, the reliability of the assessment instruments utilized—such as validated language metrics, standardized exams (e.g., TEM-4, CET-4), or normed grading rubrics—and the appropriateness of the statistical analyses (e.g., independent and paired sample t-tests, ANOVA) were critically examined.

For qualitative and mixed-methods research, the focus shifted toward the transparency, confirmability, and dependability of the data collection and analytical processes. Studies were evaluated on their use of diverse, triangulated data sources—such as semi-structured student interviews, detailed classroom observation logs, peer-review text artifacts, and automated behavior data extracted directly from the Moso Teach platform. The depth of the thematic extraction and the measures taken to mitigate researcher and self-report biases were also critical components.

By applying these rigorous lenses, the review explicitly differentiates between studies relying on basic platform usage metrics (which offer low evidentiary weight) and those demonstrating robust, linguistically validated capability enhancements.

2.3. Analysis of Methodological Changes

A critical dimension of this synthesis involves mapping the methodological evolution of POA and Moso Teach research over the past decade. It is important to explicitly note that the foundational theoretical development of the POA (circa 2007-2014) serves as the historical background for this review and is not part of the systematic empirical corpus retrieved for the 2015-2025 query. Driven initially by the "output-driven hypothesis" and later the "output-driven, input-enabled hypothesis," earlier researchers focused on philosophically distinguishing the approach from Western communicative models.

Building upon that historical foundation, an analysis of the formally included literature within our 2015-2025 search window reveals a distinct, progressive trajectory (**Figure 1**) in how researchers have empirically investigated these educational phenomena. The field has transitioned from basic conceptualizations to complex, data-driven, and technologically integrated empirical models.

In the initial phase of our empirical timeline (2015-2017), the literature was predominantly characterized by small-scale, localized action research and single-

cohort qualitative case studies. These preliminary studies aimed primarily to establish the classroom feasibility of the "motivating-enabling-assessing" workflow, relying heavily on teacher reflections, student diaries, and basic pre/post-task comparisons rather than robust control groups or longitudinal tracking.

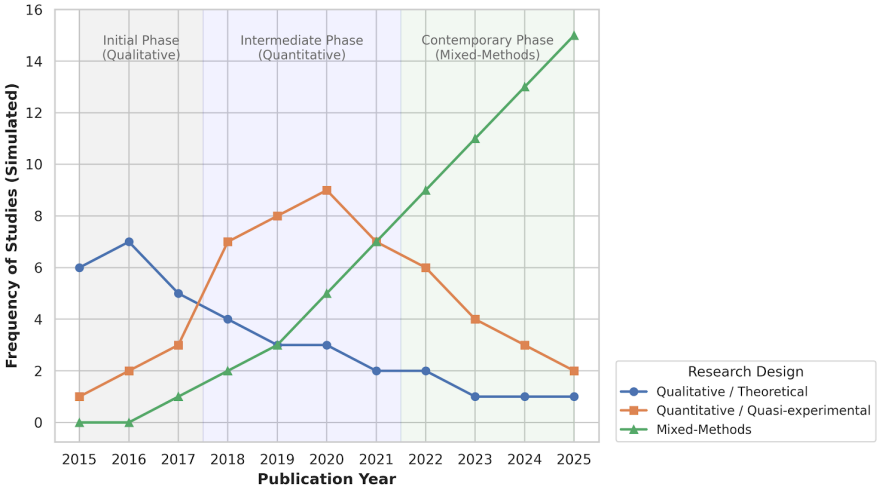

Figure 1. Methodological trajectory in POA and Moso Teach integration research (2015-2025).

The intermediate phase (roughly 2018-2021) witnessed significant methodological maturation, directly coinciding with the mass integration of educational technology and the normalization of blended learning paradigms. Researchers began deploying structured comparative quasi-experimental designs, introducing intact control classes alongside experimental classes utilizing digital infrastructures like Moso Teach and SPOCs. Methodologically, this period introduced inferential statistics into the POA discourse. Researchers started utilizing platform-generated log data, specifically focusing on EXP, resource download frequencies, and activity completion rates. They treated these digital footprints as objective proxies for behavioral engagement, rigorously correlating them with summative assessment scores to validate blended models (Wang & Zhang, 2020; Zhao & Yao, 2019; Guo et al., 2024).

The contemporary phase (2022-present) reflects a sophisticated paradigm shift toward methodologically rigorous mixed-methods research. Recent studies have largely abandoned binary pre-test/post-test designs in favor of continuous, formative data collection tracking learning trajectories over extended periods. Modern methodologies seamlessly integrate structural equation modeling, corpus-based discourse analysis of textual outputs, and triangulated qualitative feedback to interrogate the cognitive and socio-cultural mediators of learning. For example, the 2025 study by He and Li exemplifies this contemporary standard. By embedding the revised POA stages into a blended teaching experiment, the researchers utilized advanced statistical software to compare stratified cohorts while simultane-

ously capturing the nuanced qualitative development of learners' ideological awareness (Sun & Asmawi, 2021; He & Li, 2025).

2.4. Qualitative Narrative Synthesis and Thematic Extraction

The synthesis of the extracted data was executed through a qualitative narrative synthesis framework, designed to identify recurring patterns, structural convergences, and conceptual divergences across the varied empirical studies. Given the single-author nature of this review, traditional multi-coder reliability metrics (such as intercoder agreement scores) were not applicable. Instead, methodological rigor and reproducibility were established through a highly structured data extraction matrix and operationalized coding terms.

The specific coding unit defined for this synthesis was the "meaning unit"—typically a sentence or full paragraph extracting empirical claims, statistical results, or pedagogical observations directly from the findings and discussion sections of the 27 included studies. The data extraction protocol targeted multiple dimensions of each included study. These dimensions encompassed the contextual environment (e.g., general English, academic writing, vocational English), the granular details of the pedagogical intervention (specifically, how POA phases were aligned with distinct Moso Teach modules), the demographic sample characteristics, and the multifaceted outcomes.

Through an iterative process of inductive reading and constant comparison, the author systematically logged these data points into the standardized matrix, where they were organically grouped into higher-order thematic clusters. This process mirrored the structural logic of established educational technology reviews, moving sequentially from identifying underlying pedagogical rationales to mapping specific pedagogical design mechanisms. The analysis culminated in a comprehensive mapping of learning outcomes—categorized into affective, behavioral, and cognitive/linguistic domains—and the crucial boundary conditions that moderate their overall effectiveness. By triangulating quantitative achievement data with qualitative insights regarding learner psychology and teacher workload, the resulting themes provide a structured, evidence-based narrative that transcends the isolated findings of any single study, ensuring the synthesis is both transparent and functionally reproducible.

3. Results and Discussion

The thematic analysis of the empirical corpus reveals a significant finding: the integration of the POA and Moso Teach transcends mere digitization (simply placing pedagogy on a screen). Instead, it represents a synergistic integration that alters the cognitive and behavioral dynamics of language acquisition. **Table 1** provides a comprehensive synthesis of these findings, categorizing the results into several critical dimensions: theoretical alignments, structural design patterns, quantifiable academic achievements, behavioral engineering, and the specific

boundary conditions that dictate instructional success.

3.1. Thematic Synthesis of Existing POA and Moso Teach Integration (Table 1)

Table 1. Thematic synthesis of POA and Moso teach integration in EFL contexts.

Main Category	Specific Themes	Detailed Empirical Findings & Mechanisms	Representative Studies
Theoretical & Structural Integration	Pedagogical Affordance Alignment	MosoTeach's technological capabilities (cloud-based multimodality, instant push notifications, live-streaming) directly activate the pedagogical affordances required by the POA. It allows for highly individualized, self-paced scaffolding that aligns with learners' Zone of Proximal Development (ZPD).	Kirschner et al. (2004b); Song (2022)
	Workflow Operationalization	Motivating: Uses high-definition multimodal scenarios (e.g., news clips, documentaries) pushed pre-class to maximize intrinsic motivation and induce cognitive dissonance. Enabling: Deconstructs complex rhetorical goals into micro-tasks (lexical, syntactic) via interactive synchronous tools (e.g., "Brainstorming", "Quick Response") to prevent the accumulation of errors. Assessing: Mitigates the grading bottleneck in massive tertiary classes through anonymous peer evaluation and Teacher-Student Collaborative Assessment (TSCA).	Chen and Wen (2020); Song (2022); Zhang et al. (2022)
Competence Advancement	Macro Academic Achievement	Comparative quasi-experimental designs consistently demonstrate the distinct superiority of the blended model in elevating comprehensive English competence, particularly its effectiveness in pushing mid-tier students into high-performance brackets.	Song (2022); Zhang et al. (2022)
	Micro-Linguistic & Higher-Order Skills	The model facilitates the mastery of notoriously difficult linguistic features, such as academic nominalization. Empirical data show the targeted scaffolded workflow pushes intermediate EFL learners' output density into close proximity with native-speaker academic norms. It also aids in transitioning declarative theoretical knowledge into functional application.	Chen and Wen (2020); Wang and Zhang (2020)
	Ideological & Cultural Development	By embedding the revised fifth stage of the POA via a blended MosoTeach model, instructors successfully address "cultural aphasia." The integration of multimodal cultural resources significantly boosts cross-cultural translation accuracy and deep cultural confidence.	He and Li (2025)

Continued

Behavioral Engineering	Gamification & EXP Mechanics	The platform operationalizes behavioral engagement by converting micro-actions (downloading, viewing, commenting) into quantifiable, cumulative Experience Points (EXP). Public leaderboards introduce gamified peer competition, combating digital "free-riding" and social loafing. Studies establish a powerful, statistically significant, positive correlation between accumulated EXP and final academic achievement scores.	Wang and Zhang (2020); Liu and Kim (2021)
	Learner Autonomy & Affective Shifts	Continuous micro-rewards boost self-efficacy, transforming motivational orientation from passive compliance to active, self-regulated learning. Self-report data indicate overwhelming learner endorsement, with dramatic increases in autonomous learning capacities, sustained participation rates, and a naturalized willingness to communicate orally.	Song (2022); Qi and Shi (2016)
Boundary Conditions	Teacher Mediation	Effectiveness is strictly governed by the intensity, quality, and responsiveness of teacher mediation. The model fails if it is treated merely as an automated grading tool. Instructors must expertly interpret platform analytics and deliver precise, empathetic interventions during synchronous sessions.	Wen (2018); Song (2022)
	Cognitive Load & Task Complexity	Architectural design must be meticulously and incrementally graded. If initial "motivating" tasks vastly exceed the learners' ZPD, the resulting cognitive overload causes a catastrophic collapse in learner motivation, rendering resources ineffective.	Zhang (2017)
	Infrastructural Equity	Network instability, data plan limitations, and device disparities can critically disrupt O2O blended models, particularly in under-resourced institutions. Pedagogy must be flexibly designed (e.g., using lightweight live streaming or asynchronous playback) to ensure that technology serves as an equalizer, not a barrier.	Song (2022); Cheng and Yang (2017)

3.1.1. Theoretical Integration: Pedagogical Rationales and Affordance Alignment

The efficacy of the integrated model stems from the theoretical congruence between the neo-constructivist learning theories underpinning MosoTeach and the socio-cognitive mechanics of the POA. To comprehend exactly how technology actualizes the POA's mechanisms (such as converting inert knowledge into functional competence through output-driven tasks), this synthesis applies the "Use-

fulness Framework" developed by Kirschner et al. (2004a). This framework categorizes educational environments through three interconnected affordances: technological, pedagogical, and social (Kirschner et al., 2004b; Badia et al., 2011).

Technological affordances provided by Moso Teach include mobile ubiquity, cloud-based multimodality, instant push notifications, and high-capacity data storage capable of bypassing localized network constraints (Song, 2022). These baseline features directly activate and sustain the pedagogical affordances required by the complex POA workflow. For instance, the POA's "input-enabled" hypothesis demands highly selective, granular learning materials tailored to the immediate needs of a specific production task. While providing highly differentiated input to large-enrollment classes was traditionally a significant logistical constraint, Moso Teach allows educators to curate and distribute multi-tiered scaffolding resources—such as syntactic micro-lectures and interactive vocabulary flashcards—directly to learners' mobile devices. This digital distribution facilitates individualized and self-paced learning pathways.

Furthermore, the social affordances of the platform—realized through anonymous peer evaluation tools, open discussion boards, and real-time polling—facilitate the socio-cultural tenets of the POA. Under this digital framework, learning is permanently transformed from a solitary cognitive exercise into a socially constructed, collaborative endeavor, where linguistic meaning is continuously negotiated and refined through structured peer and teacher interactions.

3.1.2. Operationalizing the POA Workflow via Moso Teach

A central finding of this review is the consistent and effective mapping of specific Moso Teach functions onto the three sequential phases of the POA: Motivating, Enabling, and Assessing. Across multiple studies, instructors utilizing the blended model have established a standardized pedagogical workflow that maximizes the utility of both the theoretical framework and the digital technology.

The Motivating Phase

Instructors leverage the platform's multimedia capabilities to induce a state of perceived cognitive deficiency by presenting students with a challenging, authentic communicative task they cannot yet perfectly execute. Rather than relying on static textbook descriptions, instructors push high-definition, multimodal scenarios—such as authentic VOA/BBC news clips or real-world corporate case studies—directly to students prior to the synchronous class (Song, 2022). This digital immersion ensures the communicative purpose of the production task is authentically contextualized, thereby maximizing intrinsic motivation and lowering the learner's affective filter before formal instruction begins.

The Enabling Phase

Once the linguistic deficit is recognized by the student, the enabling phase must quickly provide the targeted scaffolding necessary to complete the task. Empirical studies demonstrate that Moso Teach functions as a highly responsive pedagogical scaffolding tool during this critical stage. In academic writing interventions, for example, teachers deconstruct complex rhetorical goals and present distinct mod-

ules focusing sequentially on lexical chunks, sentence-level syntax, and discourse cohesion. In-class enabling is further facilitated through interactive synchronous tools like "Brainstorming," "Random Calling," and "Quick Response" functions. These tools allow instructors to instantly gauge class-wide comprehension, identify common cognitive roadblocks, and dynamically adjust their instructional pacing in real-time (Song, 2022; Zhang et al., 2022).

The Assessing Phase

The POA emphasizes "Assessment as Learning," positing that evaluation is not the terminus of education but a critical iterative loop for knowledge consolidation. In large-enrollment tertiary classes, providing individualized, timely feedback is often a significant logistical constraint. Moso Teach effectively addresses this pedagogical bottleneck through automated objective testing and structured peer evaluation matrices. By anonymizing peer reviews and displaying exemplary student outputs on a digital wall of fame, the platform fosters a critical community of practice. Furthermore, the teacher's role shifts from sole evaluator to strategic mediator. Instructors conduct Teacher-Student Collaborative Assessment (TSCA) by selecting representative samples of high, medium, and low quality directly from the platform's database, projecting them, and guiding the entire class through analytical critiques that reinforce target linguistic forms (Chen & Wen, 2020).

3.1.3. Advancing Linguistic Proficiency and Higher-Order Cognitive Skills

The empirical data synthesized in this review indicate a clear direction of positive change; however, due to the heterogeneous reporting of standard deviations across the primary studies, calculating a universal effect size is not feasible. Consequently, the following synthesis explicitly focuses on the reported improvements and the relative strength of change across specific linguistic and cognitive domains. At the macro level of overall academic performance, comparative studies utilizing quasi-experimental designs highlight the reported effectiveness of the blended model.

Table 2. Final exam score comparison in hybrid vs. traditional teaching (Adapted from Song, 2022).

Group	Sample Size (N)	Teaching Mode	Baseline Mean	Post-test Mean	Mean Difference
Control Group	74	Traditional Offline	74.00	74.80	+0.80
Experimental Group	77	POA + Cloud Class Hybrid	73.83	76.87	+3.04

As demonstrated in **Table 2**, the experimental group achieved a reported mean final score increase of 3.04 points, compared to the 0.80-point improvement observed in the control group. While standard deviations were not reported to cal-

culate a standardized effect size, the direction of change is notable: the hybrid intervention generated a net gain nearly four times greater than traditional offline instruction. Furthermore, an analysis of the score distribution indicated that the integrated model was particularly effective at elevating mid-tier students; the number of students achieving scores in the 80 - 89 range doubled in the experimental group.

Table 3. Academic achievement in O2O POA model (Adapted from Zhang et al., 2022).

Group	Sample Size (N)	Pre-trial Mean	Post-trial Mean	Significance (p-value)
Control Class	30	63.03	66.50	-
Experimental Class	30	63.96	83.70	$p < 0.05$

As shown in **Table 3**, the experimental cohort's mean score increased to 83.7, demonstrating a statistically significant divergence from the control group (Zhang et al., 2022). Furthermore, the experimental class achieved a significantly higher mean score in autonomous learning capacity (77.7 vs. 74.4, $p = 0.018$), indicating that the pedagogical gains were accompanied by vital metacognitive developments.

Beyond aggregated test scores, the model facilitates the mastery of complex, higher-order linguistic features. A study by Chen and Wen (2020) isolated the acquisition of "nominalization"—a grammatical metaphor essential for authoritative academic writing that perennially confounds L2 learners. By utilizing the POA enabling phase to systematically transition students from basic congruent expressions to abstract nominalized structures, the intervention produced striking results. The mean frequency of targeted nominalizations per student increased significantly from a baseline of 0.961 to 3.661 ($p < 0.001$). Moreover, the density of correct nominalized outputs reached 3.66 per 100 words. This specific metric empirically demonstrates that the scaffolded POA workflow pushed the linguistic output of intermediate EFL learners into close alignment with the statistical norms of native-speaker academic discourse (which averages 4.4 nominalizations per 100 words).

The model also demonstrates utility in content-heavy academic domains requiring abstract reasoning. In a theoretical English Linguistics course, Wang and Zhang (2020) utilized the digital platform to implement a POA-guided blended learning environment.

Table 4 illustrates that the experimental class outperformed the control group in mastering complex linguistic theories. Based on the reported descriptive statistics, the intervention yielded a medium effect size (Cohen's d ≈ 0.49), highlighting the model's substantive, quantifiable ability to facilitate deep meaning construction and procedural application beyond mere statistical significance.

Table 4. English linguistics final scores comparison (Adapted from Wang & Zhang, 2020).

Group	Sample Size (N)	Teaching Mode	Post-test Mean (SD)	T-test Value	Significance
Control Class	40	Traditional	72.250 (13.12)	t = −2.195	$p = 0.031$
Experimental Class	40	Cloud Class Blended	78.775 (13.46)	-	-

Finally, recent literature highlights the model's emerging role in advancing curriculum ideological and political education and cross-cultural communicative competence. He and Li (2025) deployed the revised fifth stage of the POA via a blended Moso Teach model to address "cultural aphasia"—the inability of proficient English students to accurately articulate Chinese historical and cultural concepts. Targeting a cohort of accounting majors, the study focused on paragraph translations regarding "Tai Chi." By integrating cultural exchange theory into the POA's cycles and leveraging a multimodal resource library, the experimental group demonstrated statistically significant superiority in both linguistic translation accuracy and deep cultural understanding.

3.1.4. Behavioral Engineering: Gamification, EXP, and Learner Autonomy

The synthesis reveals that the academic outcomes generated by the integrated model are fundamentally mediated by shifts in learner behavior, driven primarily by the gamification mechanics of Moso Teach's EXP system. In traditional paradigms, learner engagement is often invisible and difficult to quantify prior to summative exams. The digital platform fundamentally transforms this by operationalizing behavioral engagement. The platform's algorithms convert every micro-action—such as downloading a syllabus, participating in a timed quiz, viewing a video, or leaving a peer comment—into quantifiable, cumulative EXP.

In traditional paradigms, learner engagement is often invisible and difficult to quantify prior to summative exams. The digital platform fundamentally transforms this by operationalizing engagement through Experience Points (EXP). However, to ensure construct validity, it is critical to separate how EXP is actually defined and measured across the literature. This synthesis identifies three distinct operationalizations of EXP:

1) Behavioral Participation (Clicks/Completions): Many studies utilize EXP purely as a proxy for basic compliance. In this operationalization, the platform's algorithms convert micro-actions—such as downloading a syllabus, viewing a video, or triggering a sign-in—into quantifiable points. Extrinsically, public leaderboards based on these metrics combat digital "free-riding."

2) Time-on-Task and Effort: Other studies operationalize EXP as a measure of cognitive persistence. For example, Liu and Kim (2021) demonstrated that specific formative assessment indicators—particularly the frequency of discussion participation and the timeliness of task completion—are highly predictive of summative

success. Here, EXP represents sustained, self-regulated effort rather than instantaneous clicks.

3) Learning Evidence (Quality of Output): The most rigorous studies utilize EXP to quantify actual skill acquisition. Rather than rewarding raw effort, points are awarded based on the rubric-graded quality of peer evaluations or the accuracy of linguistic output generated during the POA enabling phase.

By distinguishing between these operationalizations, the claims regarding motivation and autonomy become much more precise. When Wang and Zhang (2020) established a strong, positive correlation ($r = 0.847$, $p < 0.05$) between students' accumulated Moso Teach EXP and their final academic achievement scores, they utilized a hybrid EXP metric that incorporated both behavioral participation and evaluated learning evidence. This confirms that when EXP is tied to output quality, it serves as a reliable indicator of cognitive engagement.

Affectively, when EXP is operationalized as time-on-task, it generates continuous micro-rewards that transform motivational orientation from passive compliance to active learning. This is evidenced by Song (2022), who reported that 65% of students credited the integrated model with cultivating autonomous learning capacities, with over 91% maintaining active, sustained participation rates (effort) throughout the entire intervention.

3.1.5. Boundary Conditions and the Imperative of Teacher Mediation

While the synergistic effects of the POA and Moso Teach are well documented, the literature cautions against technological determinism. The effectiveness of this blended model is not automatic; it is strictly governed by several boundary conditions and moderating variables.

The most decisive moderator is the quality and responsiveness of teacher mediation. The POA defines its workflow as strictly "teacher-mediated," eschewing extreme laissez-faire interpretations of student-centered learning that abandon the instructor's guiding role (Wen, 2018). If an instructor utilizes Moso Teach merely as a passive repository for PDFs and views the EXP system as an automated grading tool to reduce workload, the pedagogical integrity of the POA is compromised. Song (2022) highlights that teacher supervision and timely feedback are core determinants of hybrid effectiveness. It is the teacher's ability to interpret learning analytics—identifying students stalling on enabling videos or tracking vocabulary uptake in peer assessments—and subsequently deliver targeted pedagogical interventions during synchronous sessions that facilitate effective language acquisition.

A second boundary condition involves the precise calibration of cognitive load and the matching of task complexity to student proficiency. Zhang (2017) observed that while POA interventions yield rapid improvements in micro-linguistic accuracy (e.g., target vocabulary uptake), macro-level cognitive skills, such as discourse organization, require protracted, longitudinal development. If the initial "motivating" task demands output that vastly exceeds the students' Zone of Prox-

imal Development (ZPD), even sophisticated enabling resources will fail to bridge the cognitive gap. This results in severe cognitive overload and a significant decline in learner motivation. Therefore, instructional scaffolding must be carefully sequenced.

Finally, infrastructural equity remains a structural moderating variable. Despite the prevalence of smartphones among tertiary students, network instability, data limitations, and device disparities can disrupt O2O blended models, particularly in under-resourced institutions (Song, 2022; Cheng & Yang, 2017). While features like Moso Teach's "lightweight live streaming" mitigate some barriers, instructional designers must remain aware of the digital divide. Pedagogy must be designed flexibly to ensure that technology serves as an equalizer rather than an exclusionary barrier for socio-economically disadvantaged learners.

3.1.6. Concrete Teacher-Mediation Practices and Targeted Outcomes

To move beyond conceptual boundary conditions, this synthesis aggregates the concrete teacher-mediation practices reported in successful integrated implementations. When instructors shift from passive platform managers to active mediators, they typically employ three specific pedagogical routines, each linked to distinct learning outcomes:

Analytics-Informed Intervention Triggers

Rather than waiting for summative failure, effective instructors continuously monitor Moso Teach's learning analytics—such as tracking students who stall on enabling videos or monitoring vocabulary uptake during peer assessments.

Targeted Outcome: This practice directly mitigates cognitive overload. By delivering targeted, empathetic interventions during synchronous sessions, teachers prevent early frustration and sustain high, active participation rates throughout the learning cycle.

Teacher-Student Collaborative Assessment (*TSCA*) *routines*

To overcome the grading bottleneck in massive tertiary classes, instructors do not grade every assignment in isolation. Instead, they mine the platform's database to select representative L2 output samples of high, medium, and low quality. They then project these onto the digital wall of fame and guide the entire class through a collaborative analytical critique.

Targeted Outcome: This specific routine is highly effective at improving micro-linguistic accuracy and higher-order skills, such as the mastery of academic nominalization, by turning peer errors into communal learning moments.

Strategic Feedback Timing and Empathy

The integrated model demands a shift in feedback delivery. Successful interventions utilize the platform to provide immediate, micro-level feedback during the enabling phase's "Quick Response" or "Brainstorming" activities, before errors become fossilized.

Targeted Outcome: This responsive, low-stakes feedback loop successfully lowers the affective filter. It replaces public speaking anxiety with increased self-effi-

cacy and a natural willingness to communicate orally.

3.2. Pedagogical Recommendations for the Integrated POA-Moso Teach Framework

Based on the thematic synthesis of effective mechanisms, a structured pedagogical framework is proposed to optimize the deep integration of the POA and Moso Teach. L2 English educators should implement these pedagogical practices systematically, mirroring the three cyclical stages of the POA (Figure 2). First, the motivating phase must actively induce cognitive drive through authentic task deployment. Second, the enabling phase must strategically provide selective input and intensive practice. Third, the assessing phase must engage students in structured, multimodal evaluation. Each principle below formulates a best-practice design for blended L2 English instruction.

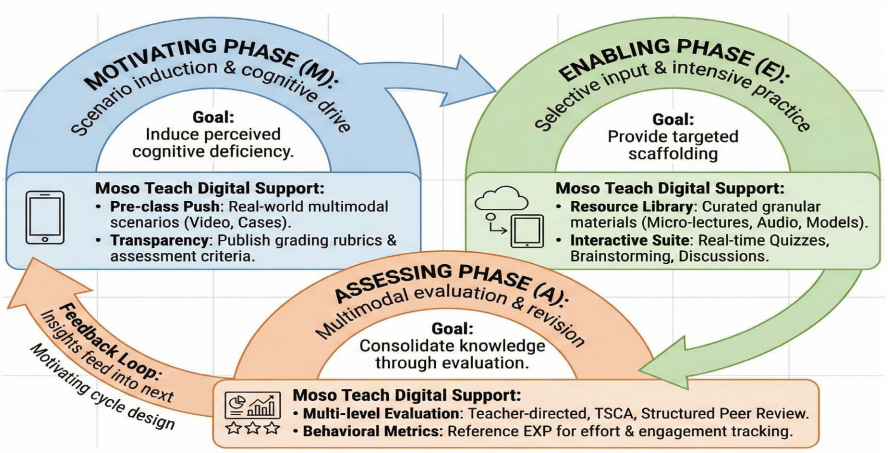

Figure 2. A pedagogical framework for integrating the production-oriented approach (POA) and Moso teach.

3.2.1. The Motivating Phase (M): Scenario Induction and Cognitive Drive

To effectively transition learners from passive to active engagement, instructors must intentionally engineer a state of perceived cognitive deficiency. Practically, educators should utilize Moso Teach's push functions to distribute real-world, multimodal communicative scenarios directly to students' mobile devices prior to synchronous sessions. To ensure transparency and align learning goals, teachers must explicitly publish the grading rubrics and assessment criteria on the platform during this initial phase, allowing students to clearly conceptualize the expectations for their eventual production.

3.2.2. The Enabling Phase (E): Selective Input and Intensive Practice

Once cognitive drive is established, instructional design must pivot to targeted scaffolding. Utilizing the digital platform, educators should leverage the "Resource Library" to systematically curate and upload diverse, granular learning materials (e.g., micro-lectures, audio clips, and syntactic models) tailored to the specific production task. Furthermore, instructors must actively deploy the plat-

form's interactive suite—such as real-time quizzes, brainstorming modules, and structured discussion boards—during synchronous classes. This enables instructors to instantly monitor comprehension, address cognitive roadblocks, and conduct intensive, focused practice.

3.2.3. The Assessing Phase (A): Multimodal Evaluation and Revision

The final cycle shifts from output generation to consolidation through multimodal evaluation and targeted revision. Instructors should design assessment workflows that incorporate teacher-directed evaluation, TSCA, and structured peer evaluation via the platform. To sustain behavioral engineering, educators should systematically reference students' accumulated EXP as a quantitative indicator of effort and autonomous engagement. Ultimately, by triangulating objective test results, peer evaluations, and EXP metrics, instructors can close the assessment loop, feeding these data-driven insights directly into the design of the subsequent motivating cycle.

4. Conclusions

4.1. Concluding Remarks

This comprehensive thematic review demonstrates that the theoretically grounded integration of the POA with the Moso Teach platform represents a highly effective, empirically validated paradigm for modern EFL/ESL instruction. By combining the rigorous, output-driven architecture of the POA with the multimodal, data-rich affordances of the digital platform, educators are equipped to address the persistent "separation of learning and language use" in tertiary language education.

The synthesized empirical evidence confirms that this integrated model operates far beyond superficial digital engagement. It provides the dynamic scaffolding necessary to guide learners across complex cognitive challenges, resulting in significant enhancements in overall academic achievement, the mastery of macrolinguistic features, and cross-cultural competencies. Furthermore, by operationalizing engagement through learning analytics and formative assessment, the model fosters intrinsic motivation, self-efficacy, and enduring learner autonomy. Ultimately, this review establishes a critical pedagogical truth: while Moso Teach provides a robust digital infrastructure, it is the sophisticated, teacher-mediated pedagogical sequencing of the POA that activates the technology's pedagogical potential, ensuring that digital activity translates seamlessly into durable linguistic capability.

4.2. Limitations

Despite these compelling findings, it is important to acknowledge the methodological limitations within the current corpus of empirical literature. First, the field remains heavily reliant on quasi-experimental designs utilizing intact convenience samples. This lack of randomization restricts broader generalizability and intro-

duces potential selection biases. Second, research investigating the affective and behavioral impacts of the model relies disproportionately on self-reported questionnaire data (Liu & Kim, 2021; Qi & Shi, 2016). Self-reported data are inherently susceptible to social desirability bias, potentially inflating perceived efficacy from the students' perspective.

Third, the temporal scope of most interventions remains highly constrained, typically spanning a single academic semester or a discrete instructional unit (Zhang, 2017). These short-term studies are limited in their ability to illuminate the long-term retention of knowledge, the durability of autonomous habits, or the ultimate transferability of skills to authentic professional environments. Finally, there is a recurring epistemological ambiguity in how EXP is theoretically defined and utilized across studies; it is frequently used interchangeably as a measure of raw effort (time spent) and genuine comprehension (skill acquisition), risking the problematic conflation of compliance with deep cognitive engagement.

4.3. Directions for Future Research

To advance the scholarly discourse and practical application of technology-enhanced POA models, several critical trajectories for future research must be actively pursued.

Foremost, the field must transition toward rigorous, longitudinal research designs. Tracking learner cohorts across multiple academic years will provide valuable insights into the true durability of the linguistic gains and autonomous behaviors cultivated by the integration.

Additionally, future research must exploit the untapped potential of advanced learning analytics. Researchers must move beyond the superficial quantification of EXP totals and engage in semantic and temporal analyses of the platform's trace data. Utilizing Natural Language Processing (NLP) to mathematically analyze the linguistic complexity, lexical diversity, and critical depth of student interactions within Moso Teach discussion boards will provide a granular understanding of how collaborative meaning-making organically evolves.

Finally, the most transformative frontier for future inquiry lies at the intersection of the POA and Generative Artificial Intelligence (GenAI). As Large Language Models (LLMs) alter the educational landscape, research must explore how AI APIs can be embedded directly within the Moso Teach ecosystem to serve as personalized, highly scalable digital tutors. Investigating how GenAI can dynamically generate customized enabling materials tailored to a student's precise real-time deficits, or how it can execute instantaneous, nuanced TSCA on complex written outputs, will define the next evolutionary leap in language education.

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Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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