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Small Private Online Courses Integrated with Blended Learning: Effect on English Speaking Skills in Chinese Higher Education

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ABSTRACT

In recent years, blended learning has gained increasing attention in English as a Foreign Language education, which offers new opportunities to support speaking development through the integration of online and face-to-face instruction. In China's tertiary education system, however, spoken English proficiency remains underdeveloped due to test-driven curricula, large class sizes, and limited interactional opportunities. While Small Private Online Courses (SPOCs) have emerged as a more focused and institutionally aligned alternative to Massive Open Online Courses, their potential to support oral language development remains underexplored, particularly when used in isolation. This study addresses this gap by examining the effectiveness of a SPOCs-blended learning model designed to improve English speaking skills among Chinese university students. Employing a multilayered mixed-methods design, the study involved one experimental group using the SPOCs-blended model and one control group receiving traditional instruction. Speaking proficiency was assessed using complexity, accuracy, and fluency measures, while qualitative data were gathered through classroom observations and interviews. Findings revealed that the SPOC-blended model significantly enhanced learners' syntactic and lexical complexity, accuracy, and fluency. Although gains in accuracy were less pronounced compared to the control group, the integration of online input with structured speaking tasks enhanced learner confidence, promoted more authentic and complex language use, and fostered a supportive, low-stress environment for oral communication. The study offers

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evidence for the pedagogical value of integrating SPOCs into blended speaking instruction and highlights the need for stronger attention to form-focused feedback and instructional alignment in future implementations.

Keywords: English Teaching; Speaking; Blended Learning; Small Private Online Courses; Higher Education

1. Introduction

The integration of technology into language education has transformed how learners access, engage with, and produce language in diverse global contexts. As digital tools become increasingly embedded in educational ecosystems, online and blended learning models have emerged as promising approaches to support language development beyond the confines of the traditional classroom[1]. Among the core language skills, speaking remains one of the most difficult to teach and acquire, particularly in contexts where learners have limited opportunities for authentic interaction[2]. Developing spoken English proficiency requires not only linguistic knowledge but also real-time communicative practice and feedback, which many instructional models fail to sufficiently provide[3].

In China's tertiary education system, the challenge is particularly pronounced. EFL (English as a foreign language) is a compulsory subject for most university students, yet oral proficiency continues to lag behind other skills due to test-oriented curricula, large class sizes, and a cultural emphasis on accuracy over fluency[4, 5]. While online learning has gained momentum in Chinese universities, especially during and after the COVID-19 pandemic[6], fully online models such as MOOCs (Massive Open Online Courses) often fall short in fostering interactive speaking practice[7, 8]. Their one-size-fits-all design, limited personalization, and lack of sustained learner engagement make them less suitable for developing productive language skills.

In response to these limitations, Small Private Online Courses (SPOCs) have emerged as a localized alternative, which offer more targeted instruction, smaller group sizes, and institutional alignment[9]. However, SPOCs alone may not fully address the need for spontaneous speaking opportunities or immediate feedback, both of which are essential for developing oral proficiency[10, 11]. Blending SPOCs with face-to-face instruction offers a potential solution by integrating the flexibility and scalability of online learning with the interactivity and contextual support of classroom-based speaking activities.

This article presents the design and evaluation of a SPOCs-blended learning model implemented in a Chinese university English course. The model seeks to enhance students' English speaking proficiency by balancing asynchronous online input with synchronous oral output opportunities. The study, underpinned by a pragmatic paradigm, aims to answer two questions: (1) What is the effect of SPOC-blended learning in Chinese EFL learners' English speaking proficiency? and (2) What are learners' and teachers' perceptions of the implementation of SPOC-blended learning? The study contributes to ongoing discussions about technology-mediated language learning by providing evidence for a context-sensitive, skills-focused application of blended learning in the Chinese EFL context.

2. Literature Review

2.1. Blended Learning

Blended learning, broadly defined as a pedagogical approach that combines face-to-face classroom instruction with online components, has been increasingly adopted in language education for its potential to address the limitations of traditional teaching formats while accommodating diverse learner needs[12]. Unlike fully online learning, blended learning maintains the interactive, social dimension of language acquisition while expanding the time and space for autonomous learning and multimodal input[13]. This dual-mode delivery aligns well with socio-constructivist theories of learning, particularly Vygotsky's[13] emphasis on interaction, mediation, and the Zone of Proximal Development, which foreground the importance of scaffolded, communicative tasks in second language development.

In second language acquisition, blended learning is particularly relevant to the teaching of speaking, a skill often underrepresented in curriculum time and formal assessment. Speaking involves not only linguistic competence but also cognitive processing, affective factors, and real-

time interaction—elements that benefit from repeated, scaffolded, and context-rich practice[3, 14]. Blended learning enables this through its ability to integrate asynchronous tasks (e.g., video modelling, reflective recording) with synchronous classroom discussions or oral presentations. According to Swain's[15] Output Hypothesis, opportunities for language production—especially under communicative pressure—are essential for learners to test hypotheses about language use, notice gaps in their knowledge, and internalize linguistic forms. Carefully designed blended environments can thus stimulate output while simultaneously offering time and space for preparation and reflection.

Empirical research supports the positive impact of blended learning on speaking outcomes. For example, studies have shown that when blended courses are structured around oral tasks—such as role-plays, collaborative discussions, and recorded presentations—students demonstrate greater fluency, increased confidence, and improved pronunciation[16–18]. These improvements are attributed to the complementary nature of online and face-to-face interactions: the former allows repeated exposure and self-paced rehearsal, while the latter encourages spontaneous speech and immediate feedback. In EFL contexts where class sizes are large and speaking is often neglected in favour of reading and writing[19], blended learning offers a way to redistribute instructional focus and support more holistic language development.

Furthermore, theories such as Task-Based Language Teaching[20] and the Communicative Language Teaching[21] framework provide useful pedagogical principles for designing effective blended speaking instruction. These include the need for meaningful communication, real-world relevance, and scaffolding of increasingly complex tasks. In a blended setting, such principles can be operationalised through pre-class preparation (e.g., video-based input or vocabulary practice), in-class speaking tasks (e.g., pair dialogues or debates), and post-class reflection or feedback (e.g., self-assessment or peer review). Research suggests that learners are more likely to engage with speaking tasks when they are supported by multimodal input, structured progression, and opportunities for reflection—features more easily facilitated in a blended format than in a traditional classroom alone[22–24].

While pedagogical design is critical, the success of blended learning also hinges on learners' acceptance and effective use of educational technologies. The Technology Acceptance Model (TAM) proposed by Davis[25] offers a foundational framework to understand how perceived usefulness and perceived ease of use influence individuals' willingness to adopt new technologies. In the context of blended language learning, students' perceptions of the platform's usability, relevance to learning goals, and capacity to support communication tasks can significantly shape their engagement and learning outcomes.

Recent studies applying TAM in blended EFL settings suggest that when learners view digital tools as beneficial to their speaking development—such as enabling pronunciation practice, access to authentic models, or interactive simulations—they are more likely to participate actively in both the online and in-class components of the course[26–28]. Conversely, technical difficulties, low digital literacy, or lack of alignment between online tasks and classroom goals may hinder acceptance and reduce learners' motivation[29, 30]. These factors are especially salient in EFL contexts such as China, where disparities in students' access to and familiarity with digital tools persist across regions and institutions.

Moreover, extended models of TAM that incorporate affective and social elements—such as the Unified Theory of Acceptance and Use of Technology (UTAUT)[31]—highlight the importance of social influence, perceived enjoyment, and facilitating conditions. When blended learning environments are perceived as engaging, socially supported, and well-structured, learners are more likely to perceive the experience as not only educationally useful but also intrinsically motivating[32, 33]. This underscores the importance of designing blended speaking courses that are not only pedagogically sound but also technologically intuitive, interactive, and relevant to learners' communicative needs.

2.2. Small Private Online Courses

SPOCs have emerged as a scalable yet personalised alternative to MOOCs, offering a more focused and instructor-led mode of digital learning. SPOCs are typically delivered to a limited cohort of learners—often within an institutional setting—and aim to blend the flexibility of online content with the accountability, guidance, and interactivity of traditional instruction[34, 35]. This semi-closed format positions SPOCs as a hybrid instructional model[36], where digital modules are embedded within or supplement face-to-face or

synchronous learning environments.

Unlike MOOCs, which tend to attract a broad and diverse audience and often suffer from low completion rates and limited learner engagement, SPOCs are designed with specific learner profiles and curriculum objectives in mind. Their smaller scale allows for tighter pedagogical alignment with institutional goals, more targeted feedback from instructors, and opportunities for peer interaction within a more controlled digital environment[37]. This makes SPOCs especially suitable for use in formal educational settings[38], such as universities and professional training programs, where learning outcomes, assessment, and engagement are carefully structured and monitored.

In second language education, SPOCs have shown promise in supporting skill-based development, particularly in contexts where large class sizes and limited instructional time constrain individualized practice[39, 40]. By incorporating multimedia materials, quizzes, discussion boards, and reflective activities, SPOCs can offer learners greater access to input and opportunities for output at their own pace, supporting principles drawn from Input Hypothesis[41] and Output Hypothesis[15]. Additionally, SPOCs can facilitate flipped learning models, where learners complete foundational tasks online prior to engaging in interactive, communicative tasks in class[42]. This sequencing is particularly effective for language learning, where pre-class vocabulary exposure or pronunciation training can enhance in-class speaking tasks.

In China, the promotion of SPOCs has been part of national efforts to modernize higher education and bridge resource disparities between institutions. Supported by the Ministry of Education, many universities have begun to adopt SPOC models to deliver general English, academic writing, and oral communication courses[40, 42]. While preliminary findings suggest positive impacts on learner autonomy and performance[9, 10, 39], several challenges persist. These include variation in course quality, lack of instructional support during the online phase, limited integration with classroom instruction, and low learner motivation in the absence of immediate supervision or peer accountability[43]. Moreover, not all SPOCs are equally well-designed[44]; some simply digitize traditional lectures without rethinking task design or learner interaction, resulting in limited pedagogical added value.

From a theoretical perspective, the success of SPOCs depends heavily on principles from blended learning[12], constructivist learning theory[13], and cognitive load theory[45]. SPOCs must be structured to support incremental learning, include clear instructional scaffolds, and avoid cognitive overload. Instructors play a critical role in curating content, moderating discussions, and aligning the online modules with in-person activities to create a coherent learning experience. Without this alignment, SPOCs risk becoming isolated, underutilized resources rather than integrated components of language instruction.

Integrating SPOCs within a blended learning framework offers a pedagogically robust way to maximise their strengths while addressing their limitations. While SPOCs offer structured digital content and flexible learning paths, their full potential is realised when complemented by face-to-face interaction that fosters spontaneous communication, social learning, and immediate feedback[44]. This combination aligns with the blended learning model's core objective: to support deep learning by leveraging the affordances of both online and offline modes[12]. When SPOC modules are intentionally designed as pre-class or parallel learning tasks, they can scaffold learners' preparation for more dynamic, communicative classroom activities—a principle central to the flipped classroom approach[30].

For speaking instruction in particular, this integration is critical. Spoken language development requires active participation, feedback loops, and opportunities to experiment with language in real-time[14]. SPOC platforms, while effective in providing input and rehearsal space, are limited in facilitating spontaneous, co-constructed speech. When blended with in-person interaction, however, students can apply pre-learned content in speaking tasks such as role plays, debates, presentations, or peer interviews—allowing for performance, reflection, and teacher scaffolding. This not only addresses the limitations of isolated online learning but also meets key conditions outlined in speaking pedagogy, including practice frequency, affective support, and contextualised use[46].

Recent research suggests that SPOC-blended designs can lead to measurable gains in speaking fluency, complexity, and learner engagement, particularly when tasks are aligned across modalities and scaffolded progressively[39, 42]. Moreover, the smaller scale and institutional control typical of SPOCs make it easier for instructors to monitor learner

progress, provide personalised feedback, and iterate content based on learner needs—advantages less feasible in large-scale open platforms[43]. Learners also tend to perceive blended SPOC models as more motivating and manageable[10], especially when classroom sessions are clearly connected to online work and framed as spaces for communicative performance rather than content review.

However, effective integration requires thoughtful instructional planning. One of the most common pitfalls in blended learning is poor alignment between digital content and in-person instruction, which can lead to redundancy, learner confusion, or disengagement[18, 47]. To avoid this, blended SPOC models must be designed with backward planning in mind, starting from desired speaking outcomes and mapping both online and face-to-face tasks accordingly. Attention must also be given to pacing, workload balance, and assessment coherence[43], ensuring that learners are not overwhelmed by fragmented or competing demands across platforms.

3. Methodology

3.1. Research Design and Participants

This study employed a multilayered mixed-methods approach to investigate the impact of a SPOCs-blended learning approach on Chinese university students' English speaking proficiency. The strength of this approach was that it allowed for both the measurement of quantifiable gains in speaking performance and the exploration of learners' and the instructor's lived experiences with the blended learning environment[48]. Integration occurred at the interpretation stage, where qualitative insights were used to explain and contextualize the patterns observed in the quantitative data. This design enabled the study to capture not only whether learning occurred, but also how and why the blended learning environment contributed to learners' speaking development.

The quantitative component involved a quasi-experimental design with one experimental group (EG) and one control group (CG), each consisting of non-English major undergraduate students enrolled in a compulsory English course at a Chinese university. The groups were recruited purposively with informed consent, based on the criteria that they were taught by the same instructor, followed the same institutional syllabus, and had comparable

English proficiency levels at baseline, as determined by their placement test scores. This purposive matching aimed to minimize instructional and curricular variability between the two groups, allowing for a more reliable comparison of learning outcomes attributable to the intervention. Each group comprised 45 students, aged between 18 and 21, with Chinese as their first language and business and finance as their majors. Both groups received three 90-minute lessons per week over the course of 12 weeks. The EG received instruction through the SPOCs-blended model (**Figure 1**), which combined online learning modules with in-class speaking activities, while the CG continued with traditional face-to-face instruction only, with a heavy focus on linguistic forms (e.g., vocabulary and grammar rules). These groups were taught by the same teacher, who was qualified to teach English at the tertiary level and had extensive experience with both online teaching and face-to-face teaching. This consistency in teacher, syllabus, and contact hours across groups, along with the participants' shared academic background and age range, contributed to a degree of internal validity in the comparison.
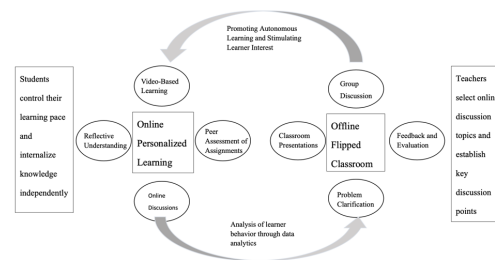
Figure 1. SPOCs-Blended model.

Qualitative data were collected to enrich and contextualise the quantitative findings by uncovering the nuanced experiences, perceptions, and challenges faced by both students and the instructor throughout the intervention. These data were obtained through post-intervention semi-structured interviews and during-intervention classroom observations focused exclusively on the EG. A voluntary sample of ten EG participants was selected for interviews, and the sample size was deemed satisfactory[49]. The instructor, who implemented the blended SPOC intervention, also participated in an in-depth interview and maintained a reflective teaching journal throughout the study.

3.2. Instruments

Students' English speaking proficiency was assessed using a validated speaking test administered as both a pre-test and a post-test. The test featured an opinion-based, monologic task designed to elicit extended spoken responses, with a sample prompt provided in **Appendix A**. All student responses were audio-recorded and analysed using a set of linguistic complexity, accuracy, and fluency (CAF) indices. These indices offered a systematic and objective means of capturing changes in learners' spoken language performance across the intervention period[50]. While there is ongoing debate in the field regarding the most appropriate measures of CAF, the selected indices—summarised in **Table 1**—were informed by previous research conducted in Chinese EFL contexts[51]. They were deemed pedagogically and linguistically appropriate for capturing the developmental features of Chinese university students' oral production, particularly in settings where spoken English is underemphasized in traditional curricula. Since the measurement of CAF indices required accurate identification of various linguistic units, including clauses, AS-units, errors, syllables, pauses, and repairs, a pilot study involving a panel of five experts in language assessment was conducted. They coded the same sample of 20 recordings, and their identification of the aforementioned linguistic units was compared. The Fleiss' kappa value was in the range of 0.82 to 0.93, indicating satisfying reliability. These experts were also involved in the formal study to quantify CAF indices.

Table 1. Speaking CAF indices.

Variables	Constructs	Indices
Complexity	Syntactic Complexity	Clauses per AS-units (CAS): the number of clauses divided by the number of AS-units
	Lexical Complexity	D-Score calculated by the Computerized Language Analysis programme
Accuracy	Global Accuracy (including syntax, morphology, and lexis)	Ratio of Errorfree Clauses (REC): the number of errorfree clauses divided by the number of clauses
		Ratio of Errorfree AS-units (REAS): the number of errorfree AS-units divided by the number of AS-units
Fluency	Speed	Speed Fluency (SF): the number of syllables divided by the total speaking time in seconds
	Pauses	Ratio of Pauses (RP): the number of pauses (over 250 milliseconds) divided by the speaking time in seconds
	Repairs	Ratio of Repairs (RR): the number of repairs divided by the speaking time in seconds

The collection of classroom observation and interview data was facilitated by carefully developed protocols. For classroom observations, a structured observation sheet (**Appendix B**) was designed to capture specific aspects of the blended learning environment, including the implementation of speaking tasks, student engagement, patterns of peer interaction, teacher scaffolding strategies, and the integration of online content into in-class activities. Observations focused particularly on the extent to which students actively used English during communicative tasks and how the instructor mediated transitions between online and offline components. Six 90-minute sessions were observed over the 12-week intervention period, with field notes taken in real time and supplemented by post-observation reflections. The interview protocol (**Appendix C**) was semi-structured, allowing for both consistency across interviews and flexibility to explore emergent themes. The student interview guide included questions on learners' experiences with the SPOCs platform, their perceptions of its usefulness in preparing for speaking tasks, and perceived changes in their speaking confidence and performance. The teacher interview focused on instructional design, perceived student responsiveness, and pedagogical challenges encountered during the blended implementation. Each student interview lasted approximately 25–30 minutes, while the teacher interview lasted 45 minutes.

3.3. Data Analysis

The quantitative data from the pre- and post-intervention speaking tests were analysed using IBM SPSS Statistics (Version 30.0). To examine within-group differences in speaking performance before and after the intervention, paired samples t-tests were conducted separately for the EG and the CG. To assess between-group differences in post-test scores, independent samples t-tests were performed. All analyses focused on three dimensions of oral performance: linguistic complexity, accuracy, and fluency (CAF). Significance was determined at the $p < 0.05$ level. On the other hand, the qualitative data from classroom observations and interviews were analysed thematically following Braun and Clarke's[52] six-phase framework. Transcripts and field notes were first read repeatedly for familiarisation. Initial codes were generated both deductively (based on the research focus) and inductively (emerging from the data). These codes were then reviewed and organised into broader themes reflecting participants' experiences, perceptions, and observed classroom dynamics. To ensure analytical rigour, two researchers independently coded a subset of the data and discussed discrepancies to reach consensus. Thematic findings were triangulated across data sources to enhance credibility and trustworthiness.

4. Findings

4.1. Quantitative Findings

The descriptive statistics of the EG's and CG's speaking performance, as measured by CAF indices, are presented in **Table 2**. **Table 3** reports the results of inferential statistical analyses for both between-group and within-group comparisons. According to the inferential statistics, there were no statistically significant differences between the EG and CG at the pre-test stage across any CAF indices ($p > 0.05$), indicating comparability in their initial speaking proficiency. However, significant differences emerged at the post-test stage. The EG significantly outperformed the CG in CAS ($p = 0.001$), D-Score ($p = 0.043$), and SF ($p < 0.001$), reflecting notable gains in syntactic complexity, lexical complexity, and fluency, respectively. In contrast, the CG showed higher scores in REC ($p = 0.032$) and REAS ($p = 0.043$), which suggested that the CG with regular teaching instruction out-performed the EG in speaking accuracy. Although the CG also had significantly higher RP ($p < 0.001$) and RR ($p = 0.001$) than the EG at the end of the study, the nature of these two indices, which involved the number of pauses and repairs in speech, indicated a lower level of speaking fluency among the CG students, with frequent pausing and self-repair.

Within-group comparisons further highlight the efficacy of the SPOCs-blended intervention. The EG demonstrated statistically significant improvements across all indices from pre- to post-test. Notable gains were observed in CAS ($p = 0.001$), D-Score ($p = 0.004$), REC ($p < 0.001$), REAS ($p = 0.001$), and SF ($p = 0.001$). Crucially, RP and RR scores significantly decreased ($p = 0.001$ for both), indicating improved fluency marked by fewer pauses and self-repairs during oral production. By contrast, the CG showed a narrower profile of improvement. While REC and REAS scores improved significantly (both $p < 0.001$), no statistically significant changes were observed in CAS, D-Score, SF, RP, or RR ($p > 0.05$), which demonstrated that the CG learners did not make manifest progress in speaking complexity and fluency.

Taken together, these findings suggest that the SPOCs-blended learning model had a more substantial and balanced impact on learners' speaking development. However, although the effect of the intervention on speaking CAF was significant, its effect on speaking accuracy was less manifest than that of regular instruction. While the EG showed notable gains in complexity and fluency—both in terms of increased syntactic and lexical sophistication and reduced disfluency—improvements in accuracy (as reflected by REC and REAS scores) were less pronounced when compared with those observed in the CG.

4.2. Qualitative Findings

4.2.1. Online Preparation Boosted In-Class Fluency and Confidence

Findings from classroom observations and interviews with both students and the instructor revealed that the SPOC-blended model enhanced learners' preparedness and confidence in speaking. Students consistently shared that completing the online modules before class—especially those featuring video exemplars, vocabulary input, and pronunciation support—enabled them to plan and rehearse their

Table 2. Descriptive CAF statistics.

Group	Indices	Test	Mean	Standard Deviation	Minimum	Maximum
EG	CAS	Pre-test	1.432	0.476	1.033	2.494
		Post-test	1.763	0.583	1.249	2.750
	D-Score	Pre-test	58.491	9.138	45.132	74.126
		Post-test	70.689	10.491	57.581	81.491
	REC	Pre-test	0.529	0.139	0.237	0.802
		Post-test	0.741	0.230	0.341	0.912
	REAS	Pre-test	0.503	0.212	0.257	0.813
		Post-test	0.740	0.391	0.401	0.925
	SF	Pre-test	3.012	1.241	1.239	4.869
		Post-test	4.122	2.381	1.579	6.741
	RP	Pre-test	0.381	0.074	0.368	0.732
		Post-test	0.224	0.057	0.134	0.473
	RR	Pre-test	0.075	0.031	0.062	0.204
		Post-test	0.057	0.088	0.045	0.187
CG	CAS	Pre-test	1.505	0.483	1.134	1.763
		Post-test	1.632	0.987	1.247	1.801
	D-Score	Pre-test	60.013	7.190	43.659	74.951
		Post-test	63.294	9.194	44.587	76.184
	REC	Pre-test	0.539	0.392	0.394	0.670
		Post-test	0.842	0.471	0.431	0.957
	REAS	Pre-test	0.513	0.487	0.320	0.749
		Post-test	0.864	0.384	0.577	0.973
	SF	Pre-test	3.114	1.481	1.479	4.149
		Post-test	3.679	2.041	1.584	4.563
	RP	Pre-test	0.379	0.328	0.198	0.502
		Post-test	0.403	0.461	0.238	0.688
	RR	Pre-test	0.074	0.041	0.053	0.244
		Post-test	0.072	0.034	0.051	0.257

speech in advance. This preparation translated into more fluent and confident in-class performance, reflected in the observed increase in speech rate and decrease in self-repairs and pauses.

During class observations, students in the EG were seen engaging more readily in pair and group discussions, with fewer breakdowns in communication compared to earlier sessions and previous cohorts. The teacher noted that *"students spoke more spontaneously and with less hesitation,"* attributing the change to the online preparation tasks. Similarly, a student explained, *"When I finished the SPOC tasks, I already had ideas and phrases in my mind. So in class, I didn't stop or panic when talking."*

This theme supports the quantitative findings showing significant gains in fluency-related indices such as SF (speech fluency), RP (repair pauses), and RR (repetitions and reformulations), highlighting how the SPOC component functioned as a scaffold for real-time spoken production. The structured, self-paced nature of the online modules appears to have mitigated cognitive load during live interaction, allowing learners to focus more on fluency and meaning-making during classroom communication.

4.2.2. Integration of Online and In-Class Tasks Facilitated Speaking Complexity

Evidence from classroom observations and interviews indicated that the integration of online and in-class components in the SPOC-blended model played a key role in enhancing learners' speaking complexity—both syntactic and lexical. Rather than functioning as isolated content, the SPOC modules were intentionally designed to introduce topic-relevant vocabulary and model more complex sentence structures, which were then reinforced through communicative tasks in the classroom.

Table 3. Inferential statistics of Between-Group and Within-Group comparisons.

Comparison	Indices	Mean Difference	Sig. (2-Tailed)
Between-Group (EG-CG) in Pre-test	CAS	−0.073	0.547
	D-Score	−1.522	0.294
	REC	−0.010	0.395
	REAS	−0.015	0.357
	SF	−0.102	0.493
	RP	0.002	0.294
	RR	0.001	0.148
Between-Group (EG-CG) in Post-test	CAS	0.131	0.001
	D-Score	7.395	0.043
	REC	−0.101	0.032
	REAS	−0.124	0.043
	SF	0.433	0.000
	RP	−0.179	0.000
	RR	−0.015	0.001
Within-EG (pre-post)	CAS	−0.331	0.001
	D-Score	−12.198	0.004
	REC	−0.212	0.000
	REAS	−0.237	0.001
	SF	−1.110	0.001
	RP	0.157	0.001
	RR	0.018	0.001
Within-CG (pre-post)	CAS	−0.127	0.139
	D-Score	−3.281	0.752
	REC	−0.303	0.000
	REAS	−0.351	0.000
	SF	−0.565	0.142
	RP	−0.024	0.481
	RR	0.002	0.530

Students frequently reported that the online input encouraged them to expand both their vocabulary use and sentence formulation. One student shared, *"The SPOC materials helped me learn more academic and topic words. I didn't just use basic words—I tried to use better ones in class."* The teacher likewise observed that students were beginning to use a broader and more precise lexical repertoire in their oral responses, particularly during opinion-giving and group discussions. These developments support the gains observed in the D-Score, an indicator of lexical sophistication.

In terms of syntactic complexity, students were seen producing longer utterances and incorporating more subordinate clauses and logical connectors. Observations revealed that students in the experimental group used more varied grammatical structures to express relationships between ideas. The teacher remarked, *"They started combining ideas more naturally, using phrases like 'although,' 'in order to,'* *or 'because of this,' which didn't happen much before."* This behavioural pattern aligns with the observed improvements in CAS (clause accuracy and subordination).

These findings suggest that the SPOC-blended approach, by aligning pre-class exposure with in-class production, supported learners' development of more complex language use. The repeated and contextualised practice enabled students to not only notice and acquire complex structures but also to apply them purposefully in spoken performance.

4.2.3. Increased Speaking Opportunities and Reduced Performance Anxiety

Qualitative data also indicated that the SPOC-blended model created more frequent and comfortable opportunities for speaking, which in turn contributed to a noticeable reduction in students' performance anxiety. The blended format allowed foundational knowledge—such as vocabulary, grammar, and content understanding—to be built online, freeing

up classroom time for sustained oral interaction. As a result, in-class sessions were consistently structured around speaking tasks such as pair work, group discussions, and role-plays, offering students multiple opportunities to use English in a supportive environment.

Students frequently described the classroom as "less stressful" compared to previous English courses that were more focused on grammar instruction or teacher-fronted drills. One student explained, *"Because we already learned the content before class, I felt more ready to speak. And since we spoke in small groups, I wasn't so nervous."* Classroom observations confirmed that students in the experimental group were more visibly engaged during oral tasks and were more willing to speak voluntarily, even without teacher prompting. The instructor similarly noted a positive change in learner behaviour: *"They speak more freely now. They don't wait for everything to be perfect before saying something."*

These affective shifts appear to align with the quantitative improvements observed in fluency measures, particularly the increase in speech rate (SF) and the significant reductions in pausing (RP) and self-repairs (RR). As students became more confident and less preoccupied with grammatical accuracy, their speech became more fluid and spontaneous. The reduction in disfluency markers suggests that the low-stakes, interaction-rich environment cultivated by the blended model enabled learners to focus on communication rather than form, encouraging risk-taking and automaticity in spoken production.

4.2.4. A Structured yet Flexible Model Supporting Comprehensive Speaking Development

Qualitative findings suggested that the SPOC-blended learning model improved students' speaking proficiency by fostering a cyclical, learner-centred instructional process that integrated online personalized learning with offline flipped classroom engagement. Rather than treating the online and offline components as separate, the model promoted a seamless loop in which students moved between self-directed preparation, guided interaction, feedback, and reflection—each stage reinforcing the next.

In the online phase, students engaged with curated video materials, vocabulary-focused tasks, and scaffolded assignments that allowed them to control their learning pace and revisit content as needed. This mode encouraged reflective understanding and gave students time to internalize new language forms before speaking. One student shared that *"I liked being able to watch the videos more than once. I didn't feel rushed, and I had time to write down good phrases I wanted to use later."* The opportunity to engage in online discussions and peer assessments further deepened their understanding while promoting early-stage language production in a low-pressure context.

During the offline flipped classroom sessions, the focus shifted to problem clarification, group discussion, and classroom presentations. Observations showed that students who had engaged with the online content were better prepared to participate in speaking tasks, displaying more confidence and linguistic readiness. According to the teacher, *"Because they had already thought about the topic and vocabulary, they were more fluent and willing to talk in class."* Students echoed this view, with one noting, *"I knew what to say because I had practiced my ideas. It was easier to speak out when I had a plan in my head."* This integration supported spoken fluency and complexity, as students could retrieve and apply pre-learned expressions, structures, and ideas without being overwhelmed by cognitive demands during real-time communication.

Furthermore, the feedback and evaluation loop—through peer interaction, teacher guidance, and data analytics—enabled students to reflect on their performance and identify areas for improvement. The teacher explained that *"the SPOC platform showed me which students had completed the online tasks and how they participated in discussions, so I could adjust the speaking tasks in class."* This data-informed personalization helped ensure that instruction met students where they were in their learning journey, supporting both linguistic growth and learner autonomy.

The effectiveness of this cyclical model lies in its ability to connect input with output, preparation with performance, and independence with structured support. Students had repeated exposure to language input, opportunities to use language meaningfully in oral tasks, and ongoing feedback that encouraged continued progress. This integrated learning cycle helped bridge the gap between language knowledge and communicative use, contributing to observable gains in speaking fluency and complexity, as well as student-reported improvements in confidence, motivation, and readiness to

communicate.

4.2.5. Limited Focus on Form Hindered Accuracy Development

While the SPOC-blended model supported students' gains in fluency and complexity, both interview and observational data revealed that it paid relatively limited attention to linguistic accuracy during spoken production. This lack of focus on form may explain why the EG's improvements in accuracy-related measures (REC and REAS) were less pronounced compared to their gains in other dimensions.

During classroom observations, teachers frequently prioritised communicative effectiveness over error correction, allowing conversations to flow without interruption. Although this approach fostered confidence and reduced anxiety, it often resulted in grammatical errors going unaddressed. The teacher acknowledged this trade-off, stating, *"We focused a lot on getting them to speak more, but we didn't always stop to correct mistakes unless they were very serious."* Students also expressed a desire for more language support, with one commenting, *"Sometimes I wasn't sure if what I said was right or wrong, because the teacher didn't always correct us."*

In addition, while the online SPOC modules provided structured input and useful language models, they lacked interactive tasks that required learners to attend closely to grammatical form or receive corrective feedback. Students were able to complete comprehension and vocabulary tasks independently, but opportunities to analyse and revise their own spoken output were limited. As one learner put it, *"The videos helped with ideas, but they didn't really teach grammar. And in class, we just spoke—we didn't go back to check our grammar after."*

These findings suggest that the current implementation of the SPOCs-blended model may be more effective in promoting fluency-oriented instruction than in developing accurate spoken language use. Without targeted, form-focused feedback—either during or after speaking tasks—students may struggle to notice and correct persistent errors. This highlights a need to more intentionally integrate corrective feedback strategies, grammar-focused reflection, or peer review practices within the blended model to support balanced oral proficiency development.

4.2.6. Practical and Pedagogical Challenges in Implementing the SPOCs-Blended Model

While the SPOC-blended learning model was generally well received, both the teacher and students identified several challenges related to its implementation. These challenges were not only technical or logistical, but also pedagogical, affecting the consistency and depth of learning across learners. One of the most frequently mentioned issues was uneven student engagement with the online component. Although the SPOC platform offered flexible access to video lessons and preparatory tasks, not all students completed the pre-class work consistently. As the teacher noted, *"Some students came to class well prepared, but others didn't watch the videos or do the tasks, so they were less active in the discussions."* This inconsistency made it difficult to conduct lessons at a uniform level of readiness, undermining the flipped classroom design. A student echoed this concern, saying, *"When my groupmates hadn't done the online part, the group discussion didn't go smoothly."*

Another challenge involved balancing time and focus between fluency development and language support. Because the in-class sessions were largely devoted to speaking tasks, there was limited time left for error correction or deeper language analysis. The teacher remarked, *"There was pressure to finish the speaking tasks, so we couldn't always stop for language clarification. Sometimes I had to choose between letting them talk and correcting their mistakes."*

Additionally, some students found it difficult to transfer what they had learned online into spoken output. While the SPOC materials provided useful input, the transition from passive understanding to active speaking was not always seamless. One student explained, *"I understood the video, but when it came time to speak, I still didn't know how to put my ideas into English."* This gap suggests that without targeted scaffolding or bridging activities, the integration between online and offline components may remain superficial for some learners.

These challenges point to the need for more structured accountability in the online phase, better scaffolding for transfer between modes, and flexible classroom strategies to support students at varying levels of preparedness. While the model holds strong potential, its success depends heavily on careful planning, ongoing monitoring, and adaptive teaching.

5. Discussion

The findings from this study provide evidence that a SPOCs-blended learning model can significantly enhance learners' English speaking proficiency in a Chinese EFL context, particularly in terms of fluency and complexity. These findings are consistent with existing research that underscores the potential of blended learning to support communicative competence by combining structured, self-paced input with interactive, output-oriented classroom practice[9, 39, 42, 43]. The results also validate the theoretical grounding of this study in socio-constructivist learning theory[13] and the Output Hypothesis[15], as the model enabled students to prepare, produce, and reflect on language use in multiple stages, increasing both their confidence and performance.

Notably, students instructed by SPOCs-blended learning showed substantial gains in syntactic complexity (CAS), lexical sophistication (D-Score), and fluency (SF), along with significantly fewer pauses (RP) and repairs (RR) than their counterparts receiving regular instruction with a focus on linguistic forms. These results align with prior studies that highlight how blended and flipped instructional formats facilitate more frequent and less pressured speaking opportunities[26, 30, 53]. Students themselves reported feeling more prepared, more confident, and less anxious when speaking in class due to the structured online preparation. This corresponds with previous literature on technology-enhanced language learning[16, 54], which emphasises the role of scaffolding and repeated exposure in reducing affective filters.

These gains can also be interpreted through the lens of task-based language teaching, which emphasises meaning-focused interaction and learner engagement with real-world communicative goals[20, 55]. The SPOCs-blended design allowed learners to work with tasks that encouraged message-focused output while preparing cognitively and linguistically through pre-class content. The flexibility to engage with SPOC modules at learners' own pace likely contributed to stronger preparation for speaking tasks[40], reinforcing the importance of task sequencing and multimodal support in improving L2 performance.

However, the data also reveal important nuances. While the SPOC-blended model effectively improved learners' fluency and complexity, its impact on accuracy (REC and REAS) was less pronounced. In fact, the CG, which received more traditional instruction, demonstrated slightly higher post-test scores in accuracy indices. This finding points to a persistent challenge in communicative approaches: the trade-off between fluency and accuracy[15, 56]. Without explicit grammar instruction or focused feedback on errors, students may prioritise message delivery over linguistic precision[51]. As qualitative data confirmed, error correction was not consistently integrated into the classroom phase, and online SPOC materials did not sufficiently target grammatical accuracy. These limitations suggest that blended models, while beneficial for promoting spoken language production, may need to embed more explicit form-focused instruction to support balanced language development.

This limitation echoes findings from Prasiska, et al.[18] and Yuan, et al.[39], who argued that without systematic feedback mechanisms, students may continue to produce language with fossilised errors, despite improved fluency. Thus, future iterations of SPOC-blended courses should consider incorporating corrective feedback techniques such as peer correction, automated grammar feedback, and reflective video-based review sessions to address persistent accuracy issues.

The study also brings attention to implementation challenges. Uneven student participation in the SPOC phase, gaps between online input and classroom output, and insufficient time for error correction were noted by both the teacher and learners. These challenges reflect broader findings in the literature, which warn of weak alignment between digital and face-to-face components in poorly planned blended courses[10, 40, 42]. Learner autonomy and digital literacy emerge as crucial factors in this regard. Where students lacked the discipline or digital readiness to complete SPOC tasks effectively, the benefits of the model were undermined. Likewise, the teacher's capacity to monitor progress and adapt instruction based on SPOC engagement data influenced the coherence and impact of the overall instructional cycle.

Despite these limitations, the study contributes to a growing body of research advocating for localized, skills-focused applications of blended learning in tertiary EFL contexts. Particularly in China, where test-oriented teaching and large class sizes often restrict oral interaction[5], SPOCs-blended models offer a promising avenue for balancing curriculum constraints with learner-centred pedagogy. These

implications also point to a broader shift in the teacher's role—from knowledge transmitter to learning facilitator and instructional designer.

For teachers, the SPOC-blended model presents both new possibilities and new pedagogical responsibilities. It enables educators to move beyond textbook-driven instruction by integrating flexible, digital content that promotes differentiated learning and supports speaking development in large classes. However, effective implementation requires teachers to adopt a more active role in curating SPOC materials, designing scaffolded in-class speaking tasks, and ensuring alignment between online and face-to-face components[11]. Teachers must also anticipate where students may struggle in transferring online input into oral output, and embed appropriate supports—such as guided rehearsal, peer modelling, or structured reflection—to bridge this gap[44]. Monitoring learner engagement through platform analytics and responding flexibly to student needs are also essential practices in maintaining coherence across modalities[10].

To fulfill these roles, teachers need ongoing professional development in digital pedagogy, flipped classroom strategies, and responsive feedback techniques. Training should emphasise how to select or adapt SPOC content, how to balance fluency and accuracy through task design, and how to use learning data to inform instruction. Institutional support in the form of time allocation, infrastructure, and collaboration opportunities will be vital to help teachers integrate this model effectively. When implemented thoughtfully, the SPOCs-blended approach can empower teachers to foster more communicative, student-centred classrooms, even within the constraints of China's exam-oriented tertiary EFL system. Its potential to enhance speaking skills lies not only in its structure, but in how teachers leverage that structure to support interaction, reflection, and meaningful language use.

6. Conclusions

This study investigated the effects of a SPOC-blended learning model on Chinese university students' English speaking proficiency and explored learner and teacher perceptions of its implementation. The findings indicate that the model significantly improved students' speaking fluency and complexity, as evidenced by gains in syntactic elaboration, lexical sophistication, and reduced disfluency markers.

Qualitative data further revealed that online preparation enhanced learner confidence and classroom participation, while the integration of digital input with in-person tasks fostered meaningful language use. Although the model's impact on speaking accuracy was less pronounced, the overall results support the value of combining SPOC modules with interactive, communicative classroom practices to promote oral development in EFL contexts.

Nonetheless, several limitations should be acknowledged. The study was conducted in a single institutional context with a relatively small and homogeneous sample of non-English major undergraduates, which limits the generalisability of the findings across disciplines, regions, and proficiency levels. Future studies should involve larger, more diverse samples across multiple institutions to enhance external validity. The duration of the intervention was also restricted to one academic semester, limiting the ability to evaluate long-term retention or the development of sustained speaking habits. Longitudinal designs that track learners' progress over extended periods could provide more robust insights into the durability of speaking gains. Moreover, although steps were taken to ensure baseline comparability between groups, variables such as digital literacy and learner motivation were not directly measured or controlled. Future research could incorporate pre-intervention surveys or diagnostic tools to assess and account for these factors, ensuring a more nuanced understanding of learner readiness and engagement in technology-enhanced environments. Additionally, the study focused primarily on learner performance and perceptions, without examining how institutional policies, assessment systems, or teacher beliefs might shape the implementation and outcomes of SPOC-blended learning. Subsequent studies could adopt a multi-stakeholder approach, incorporating institutional and teacher perspectives, as well as digital learning analytics, to inform more sustainable and context-sensitive models of blended language instruction. Experimental designs comparing feedback types or form-focused instruction levels may also help refine instructional sequencing and task design in future interventions.

Author Contributions

Conceptualization, A.M.; methodology, A.M.; software, A.M.; validation, H.H. and S.H.; formal analysis, A.M.;

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Institutional Review Board Statement

The study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board of Xichang University.

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

Data Availability Statement

The data used in the study are available from the correspondence author upon reasonable request.

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Conflicts of Interest

The authors declare no conflict of interest.

Appendix A. Speaking Test Sample

Instructions: You will have 2 minutes to prepare your response. Then you will speak for 3 minutes. Try to explain your ideas clearly and provide reasons or examples to support your opinion.

Prompt:
Some people believe that students should be required to participate in group discussions as part of their English classes. Others think that individual work is more effective for learning a language. What is your opinion?

Follow-up Prompts (if needed by the examiner):
- Why do you think group discussion is (or isn't) helpful for language learning?
- Can you give an example of a time when you learned something by speaking with others?
- How does working alone compare to working in a group when learning English?

Appendix B. Observation Sheet

Main Observation Categories:

1. **Student Engagement**
   - Are students actively participating in speaking tasks?
   - Do they respond voluntarily or only when called on?
2. **Task Implementation**
   - What types of speaking tasks are used (e.g., role-plays, discussions, presentations)?
   - Are the tasks linked to SPOC-prepared materials?

3. **Peer Interaction**
   - Do students engage in English with their peers?
   - Are they collaborating or working individually?
4. **Teacher Scaffolding**
   - What support does the teacher provide (e.g., modeling, prompts, feedback)?
   - How are online materials referenced during instruction?
5. **Integration of Online Content**
   - Does the teacher make explicit links to SPOC materials?
   - Are students expected to draw on what they learned online during in-class tasks?
6. **Language Use**
   - To what extent is English used as the medium of communication during tasks?

Appendix C. Interview Protocol

For Students

Section A: Learning Experience and Engagement

1. How did you usually complete the online tasks before class?

2. Did the online materials help you prepare for the speaking activities in class? Can you give an example?

3. What kinds of speaking tasks did you find most useful or enjoyable? Why?

Section B: Perceived Speaking Improvement

4. In what ways, if any, do you think your spoken English improved during this course?

5. Did you feel more confident speaking English by the end of the semester? Why or why not?

Section C: Attitudes toward the Blended Model

6. What do you think are the main advantages of learning in this blended format?

7. Were there any challenges or difficulties in using both the online platform and the classroom activities together?

For Teacher

Section A: Course Design and Implementation

1. How did you design the online and face-to-face components of this course?

2. What strategies did you use to link the SPOC content with in-class speaking activities?

Section B: Student Response and Participation

3. How did students respond to the blended learning model? Did you notice any changes in participation or performance over time?

4. What differences did you observe between students who completed the online tasks and those who did not?

Section C: Reflection and Improvement

5. What were the main challenges you encountered in implementing this model?

6. If you were to run this course again, what would you change or improve?

References

[1] Buddha, H., Shuib, L., Idris, N., et al., 2024. Technology-Assisted Language Learning Systems: A Systematic Literature Review. IEEE Access. 12, 33449–33472. DOI: https://doi.org/10.1109/ACCESS.2024.3366663

[2] Hoa, L.T., 2023. A Study on the Effect of Technology in Enhancing Spoken Language Proficiency. International Journal of Social Science and Human Research. 6(11), 6691–6698. DOI: https://doi.org/10.47191/ijsshr/v6-i11-15

[3] Wang, Y., Li, W., 2022. Thinking and Speaking in a Second Language. Cambridge University Press: Cambridge, UK.

[4] Hu, H., Said, N.E.M., Hashim, H., 2022. Killing two birds with one stone? A study on achievement levels and affective factors in content and language integrated learning (CLIL). International Journal of Learning, Teaching and Educational Research. 21(4), 150–167. DOI: https://doi.org/10.26803/ijlter.21.4.9

[5] Zhu, D., 2021. English Performance of Chinese University Students: The Influence of Different Factors on English Learning. Proceedings of the 2021 International Conference on Education, Language and Art; Virtually Online; 26–28 November 2021. Atlantis Press: Paris, France. pp. 843–848.

[6] Zheng, L., 2020. Research on online teaching strategies in the post-epidemic era. Educational Research. 3(6), 87–88. DOI: https://doi.org/10.32629/er.v3i6.2785

[7] Yang, Y., 2021. The Analysis and Study of Online Flipped Teaching Modes of College English Course during COVID-19 Pandemic. Advances in Education. 11(3), 823–828. DOI: https://doi.org/10.12677/ae.2021.113129

[8] Lin, J., 2020. Exploration of College English in the Hybrid Teaching Mode of Internet+ Teaching. Innovation and Practice of Teaching Method. 3(14), 111–113. DOI: https://doi.org/10.26549/jxffcxysj.v3i14.5998

[9] Li, X., Liu, Y., 2022. Efficacy of SPOC Usage Based on Course Portal on the New Media Literacy of Future Excellent Rural Chinese Language Teachers. In: Proceedings of the 2nd International Conference on New Media Development and Modernized Education; Beijing, China; 21–23 October 2022; SCITEPRESS: Setúbal, Portugal. pp. 178–185.

[10] Zhang, J., Zhang, D., 2020. Exploration on SPOC-based Blended Teaching Strategies in Business English Reading Course. E3S Web of Conferences. 218, 04030. DOI: https://doi.org/10.1051/e3sconf/202021804030

[11] Tong, L., 2017. Reflection on Foreign Language Teaching with SPOC. Sino-US English Teaching. 14(8), 496–499. DOI: https://doi.org/10.17265/1539-8072/2017.08.004

[12] Graham, C.R., 2006. Blended Learning Systems: Definition, Current Trends, and Future Directions. In: Bonk, C.J., Graham, C.R. (Eds.). The Handbook of Blended Learning: Global Perspectives, Local Designs. Wiley: Hobokken, NJ, USA. pp. 3–21.

[13] Vygotsky, L.S., 1978. Mind in Society: The Development of Higher Psychological Processes. Harvard University Press: Cambridge, MA, USA.

[14] Alonso, R.A. (Ed.), 2018. Speaking in a Second Language. John Benjamins: Amsterdam, The Netherlands.

[15] Swain, M., 1985. Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In: Gass, S., Madden, C. (Eds.). Input in Second Language Acquisition. Newbury House: New York, NY, USA. pp. 235–253.

[16] Hu, H., Du, K., 2022. TikTok in Mobile-Assisted English Language Learning: An Exploratory Study. International Journal of Information and Education Technology. 12(12), 1311–1320. DOI: https://doi.org/10.18178/ijiet.2022.12.12.1755

[17] Miftakh, F., Samsi, Y.S., Saputri, E.A., 2023. Blended Learning for English Speaking Skill Activities: Students' Perspective. SHS Web of Conferences. 173, 01007. DOI: https://doi.org/10.1051/shsconf/202317301007

[18] Prasiska, C., Tohamba, P., Hesran, W.O., et al., 2022. Blended learning for speaking ability: students' motivation in EFL classroom. Journal of Literate of English Education Study Program. 3(2), 10–18. DOI: https://doi.org/10.47435/jle.v3i02.1329

[19] Tan, Y., Lan, M., 2023. CLIL-based smart education in the teaching of scientific and technological translation. Frontiers in Educational Research. 6(26), 171–177. DOI: https://doi.org/10.25236/FER.2023.062630

[20] Ellis, R., 2003. Task-based Language Learning and Teaching. Cambridge University Press: Cambridge, UK.

[21] Lee, J.F., Patten, B.V., 2003. Making Communicative Language Teaching Happen. McGraw-Hill Education: New York, NY, USA.

[22] Zhang, X., 2020. Improve English speaking skills in the "human-computer dialogue" examination. Asia Pacific Education. 22, 191–192. DOI: https://doi.org/10.12240/j.issn.2095-9214.2020.22.091

[23] Adawiyah, R.A., 2018. The Effectiveness of Content Based Instruction in Teaching Speaking Skill for EFL Learners. Voices of English Language Education Society. 2(2), 105–112. DOI: https://doi.org/10.29408/veles.v2i2.846

[24] Fitriani, S., 2019. Content Based Instruction and its Effect in Teaching Speaking. In: Abdullah, A.G., Danuwijaya, A.A., Haristiani, N., et al., (Eds.). Proceedings of the Second Conference on Language, Literature, Education, and Culture. Atlantis Press: Dordrecht, The Netherlands. pp. 149–152.

[25] Davis, F.D., 1989. Perceived Usefulness, Perceived

Ease of Use, and User Acceptance of Information Technology. MIS Quarterly. 13(3), 319–340. DOI: https://doi.org/10.2307/249008

[26] Mohamed, R., 2023. Using blended learning to teach writing to Saudi EFL university students during the COVID-19 pandemic. International Journal of English Language and Literature Studies. 13(1), 10–25. DOI: https://doi.org/10.55493/5019.v13i1.4940

[27] Chalak, A., Mair, C., 2024. Navigating E-Learning Horizons: Exploring Challenges and Opportunities in Higher Education Integration from the German vs. Iranian EFL Teacher's Lens. Applied Research in English. 13(4), 163–206. DOI: https://doi.org/10.22108/are.2024.142181.2335

[28] Hasan, H.S., 2024. Blended Learning for Skill Development in EFL Teacher Preparation. PEDAGOGIA Jurnal Pendidikan. 13(2), 320–326. DOI: https://doi.org/10.21070/pedagogia.v13i2.1814

[29] Nhan, L.K., 2024. Enhancing EFL Instruction through Blended Learning Strategies. International Journal of Science and Management Studies. 7(3), 336–345. DOI: https://doi.org/10.51386/25815946/ijsms-v7i3p126

[30] Baskara, R., 2024. Natural language processing-based blended learning in the EFL flipped classroom: a conceptual framework and proposed designs. Abjadia International Journal of Education. 9(1), 1–17. DOI: https://doi.org/10.18860/abj.v9i1.18795

[31] Venkatesh, V., Morris, M.G., Davis, G.B., Davis, F.D., 2023. User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly. 27(3), 425–478. DOI: https://doi.org/10.2307/30036540

[32] Tucker, C.R., Wycoff, T., Green, J.T., 2016. Blended Learning in Action: A Practical Guide Toward Sustainable Change. Sage: New York, NY, USA.

[33] Bell, K., 2019. Blended Learning with Google: Your Guide to Dynamic Teaching and Learning. Shake Up Learning: McKinney, TX, USA.

[34] Li, Y., Lu, Z., Liu, H., 2023. Research and Practice of a Blended Teaching Mode based on Small Private Online Courses Under an Informatization Background. International Journal on Cybernetics & Informatics. 12(3), 109–123. DOI: https://doi.org/10.5121/ijci.2023.120308

[35] Islam, M.S., Mahmud, A.K.M.F., 2022. Public and Private University Students' Perceptions towards Online Learning during COVID-19 Pandemic in Rajshahi, Bangladesh. SSRN Electronic Journal. 9(9), 57–66. DOI: https://doi.org/10.2139/ssrn.4235758

[36] Teo, K.M., Ho, S.T., 2024. Undergraduate students' motivation toward online learning and intention to enrol in future online courses. Issues and Perspectives in Business and Social Sciences. 4(2), 143–153. DOI: https://doi.org/10.33093/ipbss.2024.4.2.3

[37] Sun, N., Wang, K., 2024. "Internet+" Perspective on the Application of Blended Learning Model in Ideological and Political Education in Private Universities: A Study. Journal of Education and Educational Research. 7(1), 294–298. DOI: https://doi.org/10.54097/kmqp0n86

[38] Kaicker, A., Mathur, P., Jawed, S., 2022. Higher Education in India Through Moocs and Online Courses. International Journal of Research – Granthaalayah. 10(3), 150–158. DOI: https://doi.org/10.29121/granthaalayah.v10.i3.2022.4545

[39] Yuan, W., Mohamad, F., Abdullah, N., Kadir, Z.A., 2024. Process Genre Approach in SPOC Blended Learning Environment to Improve Chinese EFL Learners' Generic Writing Competence. International Journal of Research and Innovation in Social Science. 7(10), 2954–2964. DOI: https://doi.org/10.47772/IJRISS.2024.8100248

[40] Huang, R., Annamalai, N., 2024. Seeking the optimal SPOC-based blended learning approach to enhance deep learning from the community of inquiry perspective. Contemporary Educational Technology. 16(4), ep537. DOI: https://doi.org/10.30935/cedtech/15574

[41] Krashen, S.D., 1987. Principles and Practice in Second Language Acquisition. Pergamon: Oxford, UK.

[42] Wu, S., 2024. Using SPOC Blended Learning to Improve the Shortcomings of Current Middle School English Reading Teaching. Frontiers in Sustainable Development. 4(11), 45–48. DOI: https://doi.org/10.54691/f8cffk63

[43] Zheng, A., 2024. Research on the Current Situation of Hybrid Learning for Domestic College Students Based on SPOC Background. Lecture Notes in Education Psychology and Public Media. 60(1), 132–140. DOI: https://doi.org/10.54254/2753-7048/60/20240512

[44] Wu, Y., 2023. Reform and Practice of Hybrid Teaching Mode in Econometrics Course Based on OBE+SPOC. SHS Web of Conferences. 179(1), 02018. DOI: https://doi.org/10.1051/shsconf/202317902018

[45] Cummins, J., 1979. Cognitive/academic language proficiency, linguistic interdependence, the optimum age question and some other matters. Available from: https://files.eric.ed.gov/fulltext/ED184334.pdf (cited 12 February 2025).

[46] Wei, S., Zhu, B., Wang, S., 2019. Voice evaluation technology Facilitate English speaking teaching and evaluation. Artificial Intelligence. 3, 73–79. Available from: https://aic-fe.bnu.edu.cn/docs/20200709135938655519.pdf (cited 13 February 2025).

[47] Tucker, C.R., 2020. Balance with Blended Learning: Partner With Your Students to Reimagine Learning and Reclaim Your Life. Sage: New York, NY, USA.

[48] Meeran, J.A., 2023. Research Methodology for PG Students. OrangeBooks Publication: Bhilai, India.

[49] Hennink, M.M., Kaiser, B.N., 2020. Saturation in Qualitative Research. Sage: New York, NY, USA.

[50] Skehan, P., 2009. Modelling second language performance: Integrating complexity, accuracy, fluency,

and lexis. Applied Linguistics. 30(4), 510–532. DOI: https://doi.org/10.1093/applin/amp047

[51] Hu, H., Mohd Said, N.E., Hashim, H., 2024. Human Ratings and Compleity, Accuracy, and Fluency (CAF) Indices: A Correlational Study of a Standardised Monologic English-Speaking Test in China. SAGE Open. 15, 21582440251343944. DOI: https://doi.org/10.1177/21582440251343944

[52] Braun, V., Clarke, V., 2021. Thematic Analysis: A Practical Guide. Sage: London, UK.

[53] Ahmed, F., 2020. Investigating learner autonomy and 21st century skills in blended tech-enhanced language learning. In: Kruk, M., Peterson, M. (Eds.), New Technological Applications for Foreign and Second Language Learning and Teaching. IGI Global: Hershey, PA, USA. pp. 113–134.

[54] Yuan, X., 2022. Investigation into the Current Situation of College Students' English Learning Motivation and Analysis of Countermeasures. Journal of Jiangxi Vocational and Technical College of Electricity. 35(2), 112–113. DOI: https://doi.org/10.3969/j.issn.1673-0097.2022.02.045

[55] East, M., 2021. Foundational Principles of Task-Based Language Teaching. Routledge: London, UK.

[56] Kenzhe, A., Bitemirova, A., Bayan, U., et al., 2025. Integrated teaching methodology in the development of foreign language professional communicative competence on the discipline "organic chemistry" at Kazakhstan University. Frontiers in Education. 10, 1374165. DOI: https://doi.org/10.3389/feduc.2025.1374165