

An O-PIRTAS Flipped Classroom Model for English-Medium Management Course: A Teaching-Reform Study for International Business Students in China

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Abstract

The sustained growth of international student enrolment in Chinese higher education has generated a pressing need for pedagogical models that are appropriate for English-medium instruction (EMI) delivered to linguistically and culturally diverse learners. This study reports a teaching-reform project in which the O-PIRTAS flipped-classroom model was adapted and applied to an English-medium Management course taken by international students enrolled in a Bachelor of Business Administration programme at a Chinese university. The O-PIRTAS model, comprising seven sequential components—Objective, Preparation, Instructional video, Review, Test, Activity, and Summary—was originally proposed as a structured framework for operationalising the flipped classroom in Chinese higher education (Guo, 2019). In the present project, the model was extended into an EMI-sensitive variant, hereafter referred to as O-PIRTAS-EMI, in which language scaffolding was embedded within each of the seven components to accommodate second-language learners of English. The reform was motivated by well-documented difficulties experienced by international business students in EMI settings, including cognitive overload arising from the simultaneous processing of disciplinary content and a non-native academic language, limited participation in teacher-centred lectures, and uneven preparation for assessment. Drawing on constructivist learning theory, cognitive load theory, and the community-of-inquiry perspective, the study articulates a design rationale, describes the implementation of each O-PIRTAS-EMI component across a sixteen-week semester, and reflects on the pedagogical, linguistic, and intercultural implications of the reform. The study is conceptual and design-oriented rather than empirical; no experimental data are reported. Instead, the contribution lies in a transferable instructional framework, a mapping of language-support strategies to each flipped-classroom stage, and a set of practical recommendations for instructors and programme administrators. It is argued that the structured, pre-class-to-in-class progression of the O-PIRTAS-EMI model addresses the particular vulnerabilities of EMI learners more systematically than either the conventional lecture or the loosely specified flipped classroom. The paper concludes with a discussion of limitations and an agenda for future empirical validation, including quasi-experimental comparison with lecture-based delivery.

Keywords: flipped classroom, O-PIRTAS model, English-medium instruction, international students, Management course, teaching reform, business education

1. Introduction

Internationalisation has become one of the defining features of contemporary higher education, and China has emerged as a major destination for students seeking a degree abroad. Business administration, and in particular the foundational course commonly titled Management, is among the most frequently selected fields of study by international students on English-medium programmes. The delivery of such a course to a cohort of learners whose first language is not English, and who originate from a wide range of educational cultures, presents a distinctive set of pedagogical challenges that are not fully addressed by instructional models designed for domestic, first-language learners.

The traditional lecture, in which a teacher transmits content to a comparatively passive audience, has long been criticised for its limited capacity to foster higher-order thinking, sustained engagement, and the development of transferable skills. These criticisms acquire additional force in the English-medium instruction (EMI) context. When content is delivered in a second language at lecture pace, learners must decode unfamiliar vocabulary, follow argument structure, and encode disciplinary concepts simultaneously, a combination that frequently exceeds available working-memory capacity (Sweller, 1988). The flipped classroom has been widely advocated as a response to the shortcomings of the lecture because it relocates the first exposure to content outside class time and reserves class time for interactive, higher-order activities (Bergmann, et al., 2012; Bishop, et al., 2013). Evidence from business and entrepreneurship education suggests that the approach can improve engagement and academic performance, although its benefits are frequently undermined by misunderstanding of the model and by implementation difficulties (Zhang, et al., 2021).

A recurrent problem in the flipped-classroom literature is that the term is used loosely to describe any arrangement in which video precedes class, without a disciplined specification of what should happen at each stage. To address this, a structured seven-component framework known as the O-PIRTAS model was proposed and evaluated in a Chinese undergraduate setting (Guo, 2019). The acronym denotes Objective, Preparation, Instructional video, Review, Test, Activity, and Summary, and the model was shown to support improved perceptions of teaching quality, greater peer interaction, stronger generic-skill development, and better examination performance relative to conventional lecturing (Guo, 2019). The model has since been applied to a market-research course (Li, 2020) and to a medical-management course under the New Medical Sciences initiative (Yang, et al., 2022), in each case providing a disciplined scaffold for the redesign of instruction.

Despite the promise of the O-PIRTAS model, its application to EMI contexts, and specifically to international students studying management in China, has not been documented. The present study addresses this gap. It describes a teaching-reform project in which the O-PIRTAS model was adapted into an EMI-sensitive variant and applied to an English-medium Principles of Management course taken by international business students at a Chinese university. The purpose of the paper is threefold: to articulate a theoretically grounded rationale for applying a structured flipped-classroom model to EMI management education; to present a detailed, stage-by-stage account of how each O-PIRTAS component was adapted to support second-language learners; and to offer practical guidance for instructors and administrators who wish to undertake comparable reforms.

Three questions guide the study. First, how can the seven components of the O-PIRTAS model be adapted to the particular needs of international students learning management through the medium of English? Second, what language-support and intercultural strategies should be embedded within each component to reduce cognitive load and promote participation? Third, what practical and institutional conditions are required to sustain such a reform? The study is explicitly conceptual and design-oriented;

it is intended to supply a transferable framework and a research agenda rather than to report experimental outcomes.

2. Literature Review

2.1 The Flipped Classroom in Higher Education

The flipped classroom inverts the conventional sequence of instruction by moving direct, transmissive teaching out of the classroom, typically into short pre-recorded videos, and reserving in-class time for active learning, problem solving, and discussion (Bergmann, et al., 2012). The pedagogical logic is that the lower-order cognitive processes of remembering and understanding can be undertaken individually before class, leaving the scarce resource of contact time for the higher-order processes of applying, analysing, evaluating, and creating, which benefit most from the presence of an expert and of peers (Bishop, et al., 2013). A meta-analytic and review literature has accumulated indicating generally positive, though variable, effects on achievement and engagement (Akçayır, et al., 2018; O'Flaherty, et al., 2015; Lo, et al., 2017; Strelan, et al., 2020). Meta-analyses spanning multiple disciplines report small-to-moderate average advantages for flipped over traditional instruction (Van Alten, et al., 2019; Cheng, et al., 2019), and large-scale experimental work has shown that active learning in general outperforms lecturing across the sciences (Freeman, et al., 2014). The variability is widely attributed to differences in design quality, student preparation, and the degree to which in-class activities genuinely exploit the inverted structure rather than reverting to lecturing (Abeysekera, et al., 2015; Jensen, et al., 2015).

An important qualification is that the flipped classroom is not a single, well-defined intervention but a family of designs. Reviews have repeatedly noted that outcomes depend less on the label than on the coherence of the design and the alignment between pre-class and in-class components (O'Flaherty, et al., 2015). This observation motivates the use of structured frameworks that specify what should occur at each stage, of which the O-PIRTAS model is a leading example in the Chinese context (Guo, 2019). The need for a disciplined, theory-informed design has been echoed across reviews that connect flipped learning to broader principles of active and student-centred pedagogy (Prince, 2004; Kim, et al., 2014; Hew, et al., 2018).

2.2 The O-PIRTAS Model

The O-PIRTAS model was developed to provide a practical, replicable framework for implementing the flipped classroom in Chinese higher education, and its effectiveness was evaluated in an undergraduate psychology course over a sixteen-week semester (Guo, 2019). The seven components are sequenced to connect out-of-class and in-class learning into a continuous cycle. The Objective component establishes clear, measurable learning goals; Preparation specifies the self-study materials and tasks; the Instructional video delivers segmented direct instruction; Review consolidates pre-class learning at the start of class; Test provides formative assessment of pre-class understanding; Activity engages students in collaborative, higher-order work; and Summary consolidates and extends learning at the close of the cycle (Guo, 2019). The theoretical foundations claimed for the model include a student-centred philosophy, constructivist learning theory, and blended-learning theory, which together provide a rationale for its systematic structure (Li, 2020). Blended designs of this kind have been argued to combine the efficiency of online delivery with the richness of face-to-face interaction when the two modes are purposefully integrated (Garrison, et al., 2004; Graham, 2006).

Subsequent applications have demonstrated the adaptability of the framework. In a market-research course, the model was used to provide self-study materials, design in-class interaction, and implement

test-based assessment, with the stated aim of deepening conceptual understanding and cultivating critical thinking and problem-solving ability (Li, 2020). In a medical-management course redesigned under the New Medical Sciences initiative, the seven components were implemented with the support of information technology, and the reform was reported to raise teaching quality and to increase the initiative and enthusiasm of students (Yang, et al., 2022). A further adaptation extended the model into an O-PIRTAS-CT variant for a pharmacy-administration course, embedding additional self-study and testing stages to link theory with practice (Qu, et al., 2021). These applications establish the O-PIRTAS model as a disciplinary-agnostic scaffold, but none has addressed the EMI context or the needs of international students.

2.3 Flipped Learning in Business and Management Education

Business and management education is a particularly fruitful domain for the flipped classroom because its subject matter lends itself to case analysis, simulation, and discussion, all of which are active-learning formats that the inverted structure is designed to support. A systematic review of flipped classrooms in business and entrepreneurship education, drawn from an initial pool of several hundred articles, concluded that the approach can significantly enhance learning effectiveness and engagement, while cautioning that both instructors and students struggle with misunderstandings about the approach and with the increased workload and course redesign it demands (Zhang, et al., 2021). A comparative study of flipped and lecture-based delivery of a career-development programme for Chinese undergraduates, using a longitudinal quasi-experimental design, found that the flipped format produced stronger outcomes immediately after the course and at a two-month follow-up, particularly in reducing career-information deficits and enhancing environmental exploration (Chen, et al., 2020). Related work in accounting, economics, and marketing education has reported comparable gains in engagement and performance when active formats replace transmissive delivery (Findlay-Thompson, et al., 2014; Roach, 2014; Wagner, et al., 2013). Together these studies indicate both the promise and the practical demands of flipped learning in management-related fields.

2.4 English-Medium Instruction and the Needs of International Students

English-medium instruction has expanded rapidly in non-anglophone higher-education systems, driven by internationalisation and by the recruitment of international students (Dearden, 2015; Macaro, et al., 2018). A substantial body of scholarship cautions that the mere substitution of English for the local language does not by itself improve, and may impair, learning, because content comprehension is mediated by language proficiency (Macaro, et al., 2018). Second-language learners in EMI settings face a heavier cognitive burden than their first-language peers, since they must process disciplinary content and an academic second language concurrently (Sweller, 1988; Dafouz, et al., 2020). The integration of content and language goals, long advocated within content-and-language-integrated-learning scholarship, has been proposed as a means of making this dual demand manageable (Coyle, et al., 2010; Cummins, 2000). The construct of translanguaging, in which learners draw on their full linguistic repertoire rather than being confined to the target language, has been proposed as one means of supporting comprehension and participation in multilingual classrooms (García, et al., 2014; Canagarajah, 2011). Comprehensible input and opportunities for meaningful output are likewise held to be essential conditions for second-language development (Krashen, 1982; Swain, 1985).

International students additionally bring diverse prior educational experiences, and those socialised in strongly teacher-centred systems may be unaccustomed to the participatory demands of active learning (Kumaravadivelu, 2003). Intercultural dimensions of classroom communication, including differing

norms regarding questioning, disagreement, and group work, further complicate the picture (Hofstede, et al., 2010; Ryan, et al., 2007). The experiences of international students in anglophone and EMI settings have been shown to depend heavily on the quality of academic and social integration they are afforded (Montgomery, 2010; Jin, et al., 2006). These considerations imply that a flipped-classroom reform for international students cannot simply be imported from first-language contexts; it must be deliberately engineered to support language development and intercultural participation alongside disciplinary learning.

2.5 Theoretical Framework

The present reform is grounded in three complementary theories. Constructivist learning theory holds that knowledge is actively built by learners through engagement with tasks and with other learners, which provides the rationale for relocating transmissive instruction to pre-class time and devoting contact time to collaborative construction of understanding (Vygotsky, 1978; Piaget, 1970). The notion of a zone of proximal development, within which learners achieve with support what they cannot yet achieve alone, underpins the scaffolding strategies adopted here (Wood, et al., 1976), while social-constructivist accounts emphasise the role of dialogue and collaboration in learning (Jonassen, 1999). Cognitive load theory explains why the EMI lecture is so demanding and why segmented, learner-paced video is beneficial: by allowing learners to pause, replay, and self-regulate, the instructional video reduces extraneous load and frees working-memory capacity for schema construction (Sweller, 1988; Mayer, 2009).

The community-of-inquiry framework, which distinguishes cognitive, social, and teaching presence, provides a vocabulary for designing the in-class activities so that they build the social and teaching presence on which deep learning depends (Garrison, et al., 2000). Collaborative and cooperative-learning research further specifies the conditions, such as positive interdependence and individual accountability, under which group work produces learning gains (Johnson, et al., 1999; Slavin, 1996). Self-determination theory further suggests that the autonomy afforded by pre-class self-study, when coupled with competence-supporting feedback and relatedness-supporting group work, can enhance motivation (Ryan, et al., 2000; Deci, et al., 1985). Well-designed feedback, understood as information that closes the gap between current and desired performance, is a further determinant of learning gains (Hattie, et al., 2007), as is the cultivation of self-regulated learning strategies (Zimmerman, 2002). These theories jointly inform the EMI-sensitive adaptation of the O-PIRTAS model described below.

3. Context and Design of the Teaching Reform

3.1 Course and Learner Context

The reform was undertaken in an undergraduate Management course, a compulsory foundation course within a Bachelor of Business Administration programme delivered in English to international students at a Chinese university. The course introduces the classical functions of management — planning, organising, leading, and controlling — together with foundational theories of organisational behaviour, decision making, and strategy. The learners constitute a culturally and linguistically heterogeneous cohort drawn from multiple countries, for whom English is a second or additional language and whose prior exposure to active-learning pedagogies varies considerably. These characteristics make the cohort both an appropriate and a demanding site for a flipped-classroom reform.

3.2 Rationale for Selecting the O-PIRTAS Model

Several considerations motivated the selection of the O-PIRTAS model as the basis for the reform. First,

the model supplies an explicit, seven-stage structure that reduces the ambiguity that commonly undermines flipped-classroom implementations (Guo, 2019; O'Flaherty, et al., 2015). Second, the model has demonstrated transferability across disciplines, having been applied successfully in psychology, market research, and medical management (Guo, 2019; Li, 2020; Yang, et al., 2022). Third, its explicit inclusion of a formative Test stage and a consolidating Summary stage aligns with the need, acute in EMI contexts, to verify comprehension before proceeding and to reinforce key terminology at closure. Fourth, its grounding in constructivist and blended-learning theory is congruent with the theoretical framework adopted here (Li, 2020). The model was therefore adopted as a scaffold and then extended to incorporate the language and intercultural supports that the EMI context requires.

3.3 The O-PIRTAS-EMI Variant

The central design contribution of this study is the O-PIRTAS-EMI variant, in which a layer of language and intercultural scaffolding is embedded within each of the seven original components. The variant preserves the sequence and intent of the O-PIRTAS model while addressing the specific vulnerabilities of second-language learners identified in the literature (Macaro, et al., 2018; Dafouz, et al., 2020). The mapping of each component to its disciplinary purpose and to the corresponding language-support strategy is summarised in Table 1.

Table 1: Mapping of O-PIRTAS-EMI Components to Disciplinary Purpose and Language-Support Strategies

Component	Disciplinary Purpose	Embedded Language-Support Strategy
Objective	Establish clear, measurable learning goals for the cycle	Provide goals in plain English; pre-teach key management terms with definitions and first-language glosses
Preparation	Specify self-study materials and tasks before class	Supply a bilingual glossary, annotated readings, and guiding questions graded by language difficulty
Instructional video	Deliver segmented direct instruction	Provide captioned videos with adjustable playback, on-screen key terms, and short segments to limit cognitive load
Review	Consolidate pre-class learning at the start of class	Use a brief oral and visual recap that models academic phrasing learners can reuse
Test	Formatively assess pre-class understanding	Use low-stakes items with clear, unambiguous wording and immediate feedback on both content and language
Activity	Engage learners in collaborative higher-order work	Structure mixed-nationality groups, assign roles, and provide sentence frames and discussion protocols
Summary	Consolidate and extend learning at closure	Co-construct a concept map and a revisited glossary; invite learners to restate principles in their own words

4. Implementation of the O-PIRTAS-EMI Model

This section describes how each component was operationalised across the sixteen-week semester. The description is intended to be sufficiently concrete to guide replication while remaining adaptable to other EMI courses.

4.1 Objective

Each weekly cycle opened with a concise statement of learning objectives expressed in plain, accessible English and aligned with the cognitive levels of a widely used educational taxonomy. Because unfamiliar terminology is a primary source of difficulty for EMI learners, the objectives were accompanied by a short list of the key management terms to be encountered, each supplied with a definition and, where feasible, a gloss in learners' first languages. This practice reflects the principle that explicit attention to academic language is a precondition for content learning in EMI settings (Macaro, et al., 2018). Clearly stated objectives also support self-regulated learning by enabling students to monitor their own progress during pre-class study (Ryan, et al., 2000).

4.2 Preparation

The Preparation component specified the self-study materials and tasks to be completed before class. For the EMI cohort, these materials were curated and sequenced to manage language load. A bilingual glossary of the cycle's core terminology was provided, together with annotated readings in which difficult passages were highlighted and briefly explained, and a small set of guiding questions graded by language difficulty so that all learners could engage at an appropriate level. The intention was to ensure that first exposure to content occurred under conditions that learners could control, consistent with the cognitive-load rationale for the flipped classroom (Sweller, 1988; Mayer, 2009). The Preparation stage also communicated expectations about the active-learning norms of the course, an important step for students socialised in more teacher-centred systems (Kumaravadivelu, 2003).

4.3 Instructional Video

Direct instruction was delivered through short, segmented videos rather than in-class lecturing. Each video was limited in length to respect the limits of sustained attention and working memory, and each addressed a single concept or principle. For the EMI cohort, the videos were captioned, incorporated on-screen display of key terms as they were introduced, and permitted adjustable playback speed so that learners could pause and replay as required. These features operationalise the multimedia-learning principles that reduce extraneous load and support schema construction (Mayer, 2009), and they confer on second-language learners a degree of control over the pace of language processing that is impossible in a live lecture (Dafouz, et al., 2020). The video component corresponds to the information-technology-supported delivery that has been reported to raise teaching quality in prior O-PIRTAS applications (Yang, et al., 2022).

4.4 Review

The in-class cycle began with a brief Review in which the main points of the pre-class materials were revisited through a combination of oral recap and visual summary. Beyond consolidating content, the Review was designed to model the academic phrasing that learners would subsequently need in discussion, thereby providing linguistic input immediately before the productive tasks of the Activity stage. Starting the class with a shared recap also addressed the uneven preparation that is common in any flipped classroom and especially consequential when comprehension is mediated by second-language proficiency (O'Flaherty, et al., 2015).

4.5 Test

A short, low-stakes formative Test followed the Review. Its purpose was to verify that pre-class learning had been achieved before class time was invested in higher-order activity, in keeping with the diagnostic function of this stage in the original model (Guo, 2019). For the EMI cohort, test items were written in clear, unambiguous language so that the assessment measured management understanding rather than reading difficulty, and immediate feedback addressed both conceptual and linguistic aspects of learners'

responses. Frequent low-stakes testing of this kind is additionally justified by evidence on the benefits of retrieval practice for durable learning (Roediger, et al., 2006).

4.6 Activity

The Activity component was the pedagogical core of the reform and occupied the largest share of contact time. Learners worked in deliberately mixed-nationality groups on case analyses, management simulations, and problem-solving tasks drawn from the functions of management. To support participation by second-language learners, each activity provided explicit discussion protocols, assigned rotating roles, and supplied sentence frames that learners could use to express agreement, disagreement, and reasoning. These supports operationalise the social and teaching presence of the community-of-inquiry framework (Garrison, et al., 2000) and reflect a translanguaging-informed acceptance that learners may draw on their full linguistic repertoire during group preparation before presenting in English (García, et al., 2014). Mixed-nationality grouping was intended to promote intercultural competence alongside disciplinary learning (Hofstede, et al., 2010). The emphasis on collaborative, higher-order activity is consistent with evidence that the benefits of flipped learning in business education arise chiefly from well-designed in-class engagement (Zhang, et al., 2021).

4.7 Summary

Each cycle closed with a Summary in which learning was consolidated and extended. Rather than a teacher-delivered recapitulation, the Summary was co-constructed: learners contributed to a concept map linking the cycle's principles and revisited the glossary introduced at the Objective stage, now restating the principles in their own words. This closing practice reinforced both disciplinary schemata and the academic language in which they are expressed, and it provided the instructor with a final opportunity to identify and correct misunderstandings. The consolidating function of the Summary stage mirrors its role in prior O-PIRTAS applications (Guo, 2019; Yang, et al., 2022).

5. Assessment Design for the Reformed Course

A coherent flipped-classroom reform requires an assessment design aligned with its active-learning aims. In the reformed course, assessment was distributed across the semester rather than concentrated in a terminal examination, in order to reward sustained engagement with the pre-class and in-class cycle. Formative assessment occurred weekly through the Test component and through instructor feedback during the Activity stage. Summative assessment combined individual and group components, including case-analysis reports, a group project addressing an authentic management problem, and a final assessment of conceptual understanding. Assessment rubrics were written to distinguish management content from language expression, so that second-language learners were not disadvantaged by language form where disciplinary understanding was sound, a practice consistent with principles of fair assessment in EMI contexts (Macaro, et al., 2018). Constructive alignment between objectives, activities, and assessment was treated as a design priority throughout (Biggs, et al., 2011). The assessment design also drew on principles of assessment for learning, which position feedback and student involvement as central to improvement (Black, et al., 1998; Nicol, et al., 2006), and on the cognitive-level structure of a widely used revised educational taxonomy (Anderson, et al., 2001).

6. Discussion

6.1 How the Model Addresses the Needs of EMI Learners

The design presented above addresses the three guiding questions of the study. In response to the first question, the seven components of the O-PIRTAS model were shown to be adaptable to the needs of

international students by embedding a consistent layer of language scaffolding within each stage, as summarised in Table 1. The adaptation does not alter the logic of the model but augments it, preserving the transferability that earlier applications have demonstrated (Guo, 2019; Li, 2020; Yang, et al., 2022) while responding to the distinctive demands of EMI (Macaro, et al., 2018).

In response to the second question, the language-support and intercultural strategies embedded in the model are theoretically motivated. The segmentation, captioning, and learner-paced delivery of the Instructional video reduce extraneous cognitive load (Sweller, 1988; Mayer, 2009); the sentence frames, discussion protocols, and mixed-nationality grouping of the Activity build social and teaching presence and foster intercultural competence (Garrison, et al., 2000; Hofstede, et al., 2010); and the glossary work spanning the Objective and Summary stages makes academic language an explicit object of learning (Dafouz, et al., 2020). The acceptance of first-language use during group preparation reflects a translanguaging stance consistent with current multilingual pedagogy (García, et al., 2014).

In response to the third question, several practical and institutional conditions were identified as necessary to sustain the reform, and these are discussed in the following subsections.

6.2 Advantages of the Reform

The reformed design offers several anticipated advantages. By relocating first exposure to content outside class, it protects contact time for the interactive work that the literature identifies as the principal source of flipped-learning benefit in business education (Zhang, et al., 2021; Chen, et al., 2020). By embedding language support throughout, it addresses the comprehension bottleneck that limits EMI effectiveness (Macaro, et al., 2018). By using mixed-nationality groups and structured discussion, it cultivates the intercultural competence that is itself a valued outcome of an international business education (Hofstede, et al., 2010). And by distributing assessment and providing frequent formative feedback, it supports the self-regulated, motivated engagement that sustains learning across a full semester (Ryan, et al., 2000; Roediger, et al., 2006).

6.3 Anticipated Challenges and Mitigation

The flipped-classroom literature consistently reports that implementation is demanding for both instructors and students (Zhang, et al., 2021; Akçayır, et al., 2018). Instructors face a substantial up-front workload in producing captioned videos, glossaries, and structured activities, and this is compounded in the EMI context by the need to author language-support materials. Mitigation requires institutional investment in instructional-design support and the reuse and incremental refinement of materials across semesters. Students accustomed to teacher-centred instruction may initially resist the expectation of pre-class preparation and in-class participation (Kumaravadivelu, 2003); clear communication of expectations at the Preparation stage, together with low-stakes accountability through the Test component, is intended to address this. Uneven pre-class preparation, a well-known risk in flipped designs (O'Flaherty, et al., 2015), is mitigated by the opening Review and Test, which surface and remedy gaps before higher-order work begins. Finally, the risk that in-class time reverts to lecturing, identified as a common failure mode (Bishop, et al., 2013), is reduced by the explicit specification of the Activity component.

6.4 Implications for Practice and Policy

Several implications follow for instructors and administrators. For instructors, the mapping in Table 1 offers a concrete template for redesigning an EMI course without having to resolve from first principles what should occur at each flipped-classroom stage. For programme administrators, the reform underscores the importance of providing instructional-design support, video-production facilities, and recognition of the preparation effort that flipped and EMI teaching demand. For institutions pursuing

internationalisation, the study illustrates that the quality of EMI provision, rather than the mere adoption of English as the medium, determines educational value (Dearden, 2015; Macaro, et al., 2018).

7. Limitations and Future Research

The principal limitation of this study is that it is conceptual and design-oriented and does not report empirical evidence of effectiveness; no experimental comparison, survey, or performance data are presented. The claimed benefits of the O-PIRTAS-EMI model are therefore grounded in theory and in the findings of related studies rather than in direct evaluation of this implementation. A clear agenda for future research follows. A quasi-experimental study comparing the O-PIRTAS-EMI model with lecture-based delivery, along the lines of prior comparisons in Chinese higher education (Guo, 2019; Chen, et al., 2020), would provide the most direct test of effectiveness, ideally incorporating measures of disciplinary achievement, academic-language development, engagement, and intercultural competence. Mixed-methods designs incorporating interviews would illuminate learners' experiences of the language-support strategies. Longitudinal designs could examine whether gains persist and transfer to subsequent courses. Finally, comparative studies across institutions and disciplines would establish the boundary conditions of the model's transferability.

7.1 Toward Empirical Validation

Future empirical work should be designed in accordance with established standards for educational intervention research. Validated instruments for engagement, motivation, and perceived learning should be adopted where they exist, and the reporting of effect sizes alongside tests of statistical significance is recommended so that the practical magnitude of any advantage can be judged (Freeman, et al., 2014; Van Alten, et al., 2019). Qualitative components should attend to the lived experience of international students and to the ways in which they navigate language and cultural demands (Montgomery, 2010). Such a programme of evaluation would convert the design rationale advanced here into defensible evidence and would clarify the conditions under which the O-PIRTAS-EMI model is most effective (Kim, et al., 2014; Hew, et al., 2018).

8. Conclusion

This study has presented a teaching-reform design in which the O-PIRTAS flipped-classroom model was adapted for an English-medium Management course taken by international business students in China. The central contribution is the O-PIRTAS-EMI variant, which embeds a coherent layer of language and intercultural scaffolding within each of the model's seven components, as summarised in Table 1. It has been argued that the structured progression of the model, from clearly stated Objectives through Preparation, Instructional video, Review, Test, and Activity to a consolidating Summary, addresses the particular vulnerabilities of second-language learners more systematically than either the conventional lecture or a loosely specified flipped classroom. The design is grounded in constructivist learning theory, cognitive load theory, and the community-of-inquiry framework, and it draws on the demonstrated transferability of the O-PIRTAS model across disciplines. While the study is conceptual and awaits empirical validation, it offers a transferable framework, a practical template, and a research agenda intended to support instructors and administrators engaged in the internationalisation of business education.

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References

1. Jianpeng Guo, "The Use of a Structured O-PIRTAS Flipped Classroom Model to Promote Student Learning in a University Course", *Active Learning in Higher Education*, 2019, 22 (1), 25–40.
2. Yalin Li, "The O-PIRTAS Teaching Model and Its Application: A Case Study of a Market Research Course", *Journal of Higher Education Research*, 2020, 41 (6), 88–92.
3. Xuekang Yang, Lei Wang, Min Zhao, "Innovation and Practice of the O-PIRTAS Teaching Model in the Medical Management Course under the New Medical Sciences Background", *Chinese Journal of Medical Education*, 2022, 42 (9), 801–806.
4. Lin Chen, Wei Huang, Jing Liu, "A Comparison Between Flipped and Lecture-Based Course Delivery of a Career Development Programme for Chinese Undergraduates", *Studies in Higher Education*, 2020, 45 (11), 2334–2349.
5. Yan Zhang, Peter Williams, Qing Zhou, "Flipped Classroom in Business and Entrepreneurship Education: A Systematic Review", *The International Journal of Management Education*, 2021, 19 (3), 100533.
6. Jonathan Bergmann, Aaron Sams, "Flip Your Classroom: Reach Every Student in Every Class Every Day", *International Society for Technology in Education*, 2012, 1–112.
7. Jacob Lowell Bishop, Matthew A. Verleger, "The Flipped Classroom: A Survey of the Research", *Proceedings of the American Society for Engineering Education Annual Conference*, 2013, 30 (9), 1–18.
8. Gökçe Akçayır, Murat Akçayır, "The Flipped Classroom: A Review of Its Advantages and Challenges", *Computers and Education*, 2018, 126, 334–345.
9. Jacqueline O'Flaherty, Craig Phillips, "The Use of Flipped Classrooms in Higher Education: A Scoping Review", *The Internet and Higher Education*, 2015, 25, 85–95.
- John Sweller, "Cognitive Load During Problem Solving: Effects on Learning", *Cognitive Science*, 1988, 12 (2), 257–285.
10. Richard E. Mayer, "Multimedia Learning", *Cambridge University Press*, 2009, 2nd edition, 1–304.
11. Lev S. Vygotsky, "Mind in Society: The Development of Higher Psychological Processes", *Harvard University Press*, 1978, 1–159.
12. D. Randy Garrison, Terry Anderson, Walter Archer, "Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education", *The Internet and Higher Education*, 2000, 2 (2), 87–105.
13. Richard M. Ryan, Edward L. Deci, "Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being", *American Psychologist*, 2000, 55 (1), 68–78.
14. Ernesto Macaro, Samantha Curle, Jack Pun, Jiangshan An, Julie Dearden, "A Systematic Review of English Medium Instruction in Higher Education", *Language Teaching*, 2018, 51 (1), 36–76.
15. Julie Dearden, "English as a Medium of Instruction: A Growing Global Phenomenon", *British*

Council, 2015, 1–40.

16. Emma Dafouz, Ute Smit, "ROAD-MAPPING English Medium Education in the Internationalised University", Palgrave Macmillan, 2020, 1–220.
17. Ofelia García, Li Wei, "Translanguaging: Language, Bilingualism and Education", Palgrave Macmillan, 2014, 1–165.
18. B. Kumaravadivelu, "Beyond Methods: Macrostrategies for Language Teaching", Yale University Press, 2003, 1–331.
19. Geert Hofstede, Gert Jan Hofstede, Michael Minkov, "Cultures and Organizations: Software of the Mind", McGraw-Hill, 2010, 3rd edition, 1–561.
20. Henry L. Roediger, Jeffrey D. Karpicke, "Test-Enhanced Learning: Taking Memory Tests Improves Long-Term Retention", *Psychological Science*, 2006, 17 (3), 249–255.
21. John Biggs, Catherine Tang, "Teaching for Quality Learning at University", Open University Press, 2011, 4th edition, 1–389.
- Liping Qu, Hong Chen, Yan Zhao, "A Student-Centred Flipped Classroom Teaching Design for Pharmacy Administration", *Chinese Journal of Pharmaceutical Education*, 2021, 35 (4), 55–60.
22. Chung Kwan Lo, Khe Foon Hew, Gaowei Chen, "Toward a Set of Design Principles for Mathematics Flipped Classrooms: A Synthesis of Research", *Educational Research Review*, 2017, 22, 50–73.
23. Jesse Strelan, Amanda Osborn, Edward Palmer, "The Flipped Classroom: A Meta-Analysis of Effects on Student Performance Across Disciplines and Education Levels", *Educational Research Review*, 2020, 30, 100314.
24. Daniel C.D. Van Alten, Chris Phielix, Jeroen Janssen, Liesbeth Kester, "Effects of Flipping the Classroom on Learning Outcomes and Satisfaction: A Meta-Analysis", *Educational Research Review*, 2019, 28, 100281.
25. Li Cheng, Albert D. Ritzhaupt, Pavlo Antonenko, "Effects of the Flipped Classroom Instructional Strategy on Students' Learning Outcomes: A Meta-Analysis", *Educational Technology Research and Development*, 2019, 67 (4), 793–824.
26. Scott Freeman, Sarah L. Eddy, Miles McDonough, Michelle K. Smith, Nnadozie Okoroafor, Hannah Jordt, Mary Pat Wenderoth, "Active Learning Increases Student Performance in Science, Engineering, and Mathematics", *Proceedings of the National Academy of Sciences*, 2014, 111 (23), 8410–8415.
27. Dilani S.P. Abeysekera, Phillip Dawson, "Motivation and Cognitive Load in the Flipped Classroom: Definition, Rationale and a Call for Research", *Higher Education Research and Development*, 2015, 34 (1), 1–14.
28. Jamie L. Jensen, Tyler A. Kummer, Patricia D. d.M. Godoy, "Improvements from a Flipped Classroom May Simply Be the Fruits of Active Learning", *CBE Life Sciences Education*, 2015, 14 (1), 1–12.
29. Michael J. Prince, "Does Active Learning Work? A Review of the Research", *Journal of Engineering Education*, 2004, 93 (3), 223–231.
30. Min Kyu Kim, So Mi Kim, Otto Khera, Joan Getman, "The Experience of Three Flipped Classrooms in an Urban University: An Exploration of Design Principles", *The Internet and Higher Education*, 2014, 22, 37–50.
31. Khe Foon Hew, Chung Kwan Lo, "Flipped Classroom Improves Student Learning in Health Professions Education: A Meta-Analysis", *BMC Medical Education*, 2018, 18 (1), 38.

32. D. Randy Garrison, Heather Kanuka, "Blended Learning: Uncovering Its Transformative Potential in Higher Education", *The Internet and Higher Education*, 2004, 7 (2), 95–105.
33. Charles R. Graham, "Blended Learning Systems: Definition, Current Trends, and Future Directions", Pfeiffer, 2006, 3–21.
34. Sandi Findlay-Thompson, Peter Mombourquette, "Evaluation of a Flipped Classroom in an Undergraduate Business Course", *Business Education and Accreditation*, 2014, 6 (1), 63–71.
35. Travis Roach, "Student Perceptions Toward Flipped Learning: New Methods to Increase Interaction and Active Learning in Economics", *International Review of Economics Education*, 2014, 17, 74–84.
36. John Wagner, Suzanne Vollmar, Robert Wagner, "The Impact of Information Technology on Marketing Education: A Flipped-Classroom Approach", *Journal of Marketing Education*, 2013, 35 (3), 253–263.
37. Do Coyle, Philip Hood, David Marsh, "CLIL: Content and Language Integrated Learning", Cambridge University Press, 2010, 1–184.
38. Jim Cummins, "Language, Power and Pedagogy: Bilingual Children in the Crossfire", *Multilingual Matters*, 2000, 1–309.
39. A. Suresh Canagarajah, "Codemeshing in Academic Writing: Identifying Teachable Strategies of Translanguaging", *The Modern Language Journal*, 2011, 95 (3), 401–417.
40. Stephen D. Krashen, "Principles and Practice in Second Language Acquisition", Pergamon Press, 1982, 1–209.
41. Merrill Swain, "Communicative Competence: Some Roles of Comprehensible Input and Comprehensible Output in Its Development", Newbury House, 1985, 235–253.
42. Janette Ryan, Kam Louie, "False Dichotomy? Western and Confucian Concepts of Scholarship and Learning", *Educational Philosophy and Theory*, 2007, 39 (4), 404–417.
43. Catherine Montgomery, "Understanding the International Student Experience", Palgrave Macmillan, 2010, 1–224.
44. Lixian Jin, Martin Cortazzi, "Changing Practices in Chinese Cultures of Learning", *Language, Culture and Curriculum*, 2006, 19 (1), 5–20.
45. Jean Piaget, "Science of Education and the Psychology of the Child", Orion Press, 1970, 1–186.
46. David Wood, Jerome S. Bruner, Gail Ross, "The Role of Tutoring in Problem Solving", *Journal of Child Psychology and Psychiatry*, 1976, 17 (2), 89–100.
47. David H. Jonassen, "Designing Constructivist Learning Environments", Lawrence Erlbaum Associates, 1999, 215–239.
48. David W. Johnson, Roger T. Johnson, Karl A. Smith, "Active Learning: Cooperation in the College Classroom", Interaction Book Company, 1998, 1–274.
49. Robert E. Slavin, "Research on Cooperative Learning and Achievement: What We Know, What We Need to Know", *Contemporary Educational Psychology*, 1996, 21 (1), 43–69.
50. Edward L. Deci, Richard M. Ryan, "Intrinsic Motivation and Self-Determination in Human Behavior", Plenum Press, 1985, 1–371.
51. John Hattie, Helen Timperley, "The Power of Feedback", *Review of Educational Research*, 2007, 77 (1), 81–112.
52. Barry J. Zimmerman, "Becoming a Self-Regulated Learner: An Overview", *Theory into Practice*, 2002, 41 (2), 64–70.
53. Paul Black, Dylan Wiliam, "Assessment and Classroom Learning", *Assessment in Education: Principles, Policy and Practice*, 1998, 5 (1), 7–74.

54. David J. Nicol, Debra Macfarlane-Dick, "Formative Assessment and Self-Regulated Learning: A Model and Seven Principles of Good Feedback Practice", *Studies in Higher Education*, 2006, 31 (2), 199–218.
55. Lorin W. Anderson, David R. Krathwohl, "A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives", Longman, 2001, 1–352.