



Chinese international students' engagement with learning development support in UK higher education

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ABSTRACT

This study investigates the factors influencing classroom participation among Chinese undergraduate students in a UK business programme. Drawing on a mixed-methods design, focus groups first identified key barriers and motivators of engagement, which then informed a survey completed by 61 students. Exploratory factor analysis revealed four motivational dimensions, with lecturer-driven practices such as clear guidance, encouragement, and responsiveness emerging as the strongest predictors of participation. Regression analysis confirmed that guidance, positive lecturer attitude, and instructional support significantly predicted engagement. Although language barriers remained the most prominent hindrance, findings show these challenges can be moderated through inclusive pedagogical design. The results highlight that participation is shaped less by cultural background and more by the instructional environment students encounter. The study contributes evidence that lecturer agency, instructional clarity, and supportive classroom climates play central roles in fostering engagement in internationalised higher education contexts.

1. Introduction

1.1. Background

The internationalisation of higher education has significantly changed the composition of university classrooms across the United Kingdom, where international students constitute a substantial proportion of enrolments in many programmes. The growing presence of Chinese students has prompted increased attention to participation, engagement, and inclusive pedagogical practice. While internationalised classrooms offer opportunities for intercultural exchange, they also present challenges in facilitating active participation. Student engagement is widely regarded as central to academic success. Participation in discussion, collaborative activities, and formative assessment supports deeper understanding, critical thinking, and persistence (Bergdahl et al., 2024; Kahu, 2013; Kahu & Nelson, 2018; Laranjeira & Teixeira, 2025). However, engagement patterns may vary where students are studying in a second language or transitioning between educational systems. Research frequently identifies language proficiency, academic conventions, and

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cultural adjustment as shaping international student experience (Sawir, 2005; Wang et al., 2017), with similar patterns observed among Chinese students in particular (Liu et al., 2016).

The number of Chinese students in UK higher education has grown substantially over the past decade. According to the Higher Education Statistics Agency, enrolments increased from approximately 50,000 in 2010–11 to around 95,000 in 2015–16, and further increased to over 150,000 in 2021–22. This sustained upward trajectory highlights both the rapid expansion and the continued dominance of Chinese students as the largest international student group in UK universities (Universities UK, 2023). Chinese students' experiences in Western higher education have been extensively examined. Studies report challenges related to confidence in spoken English, disciplinary terminology, and adaptation to interactive teaching styles (Haxton et al., 2019; Holliman et al., 2024; Wang, 2018). Earlier scholarship sometimes attributed lower classroom participation to prior educational traditions emphasising teacher authority and memorisation (Bush & Haiyan, 2000; Hsieh, 2012; Tweed & Lehman, 2002). Language-related pressures, including difficulty following rapid exchanges or articulating ideas under time constraints, may also affect willingness to contribute publicly (Huang, 2006; Wang et al., 2017).

More recent research suggests that participation should not be interpreted solely through cultural or linguistic explanations. Engagement is increasingly conceptualised as shaped by interactions between students and their educational environment (Kahu, 2013; Kahu & Nelson, 2018). Supportive lecturer behaviours, clarity of expectations, and inclusive classroom climates influence confidence and willingness to participate (Bethel et al., 2020; Cheng & Adekola, 2022; Holliman et al., 2024). Students may also demonstrate cognitive investment that is not always evident in verbal contributions (Holliman et al., 2024).

Within the UK context, attainment and engagement among Chinese students have attracted sustained interest. Crawford and Wang (2015) identify differences in attainment between Chinese and UK students, while Richardson (2012) links attainment patterns to learning approaches and perceptions of teaching. Broader research highlights social connectedness and adjustment among international students (Gareis, 2012; Iannelli & Huang, 2014; Yeh & Inose, 2003). However, less attention has been given to how specific classroom practices shape participation behaviours. As internationalised classrooms become more common, there is a need to identify practical teaching strategies that support engagement. Participation among Chinese students enrolled in a UK business programme is examined here to understand how instructional design and lecturer interaction relate to reported engagement. In particular, lecturer guidance, opportunities for students to process and ask questions, and a supportive classroom climate have been identified as key influences on participation.

1.2. Theoretical framework

Research directly examining how specific lecturer-controllable practices relate to measurable participation outcomes remains relatively limited. The present study draws on multidimensional engagement theory (Kahu, 2013) and Self-Determination Theory (Deci & Ryan, 2000) to examine how instructional clarity, structured interaction, and lecturer support influence student participation.

Student engagement is commonly conceptualised as comprising behavioural, emotional, and cognitive dimensions (Kahu, 2013). Behavioural engagement refers to observable participation in learning activities, such as asking questions and contributing to discussions. Emotional engagement encompasses students' affective responses, including interest, sense of belonging, and confidence. Cognitive engagement relates to the degree of investment in understanding and processing academic material. These dimensions are interdependent and shaped by contextual and relational factors rather than fixed student characteristics (Kahu & Nelson, 2018).

Within this framework, lecturer-controllable practices can be understood as key contextual influences that shape engagement. Instructional clarity such as explaining concepts, defining terminology, and outlining expectations, has been consistently linked to improved student understanding and reduced cognitive load (Hattie, 2009). Clear instruction supports cognitive engagement by enabling students to process information more effectively and develop the confidence needed to participate. In contrast, a lack of clarity may increase uncertainty, thereby inhibiting both cognitive processing and behavioural engagement. Structured interaction, including guided discussions and opportunities for participation, provides students with clear pathways for engagement. Research on classroom interaction highlights that structured opportunities designed to allow students to contribute, can significantly increase participation, particularly for students who may otherwise remain passive (William, 2011).

Self-Determination Theory (SDT), developed by Deci and Ryan (2000), provides a robust framework for understanding the motivational processes underlying student engagement and participation. The theory posits that individuals are more likely to engage optimally in learning activities when three basic psychological needs – competence, relatedness, and autonomy, are satisfied. In educational contexts, support for these needs has been shown to influence both the quality and intensity of student engagement (Reeve, 2012).

Within SDT, competence refers to students' perceived ability to understand and effectively engage with academic tasks (Ryan & Deci, 2020). This need is particularly salient for students studying in a second language, where linguistic demands may undermine confidence. Instructional clarity, including explicit explanations of key concepts and terminology, supports competence by reducing uncertainty and enabling meaningful participation.

Students who feel competent are more likely to participate actively in classroom activities because they possess greater confidence in their ability to contribute meaningfully. Lecturer guidance, including clear explanations, responsiveness to questions, and academic support, can strengthen perceptions of competence by reducing uncertainty and helping students understand expectations. Previous research has consistently linked instructional clarity and supportive lecturer behaviour to enhanced engagement and participation (Hattie, 2009; Kahu & Nelson, 2018). From a Self-Determination Theory perspective, these practices satisfy students' need for competence, thereby increasing behavioural engagement.

H1. Lecturer guidance, positive attitude, and support are positively associated with student participation.

Autonomy reflects the extent to which students feel able to express their ideas and engage in learning activities without undue pressure or fear of negative evaluation. Opportunities for participation, such as open discussions and question-and-answer sessions, including time for students to process and ask questions, can support autonomy by allowing students to exercise choice and voice. However, autonomy-supportive environments are most effective when students also feel competent; without sufficient confidence in their understanding, students may be reluctant to take advantage of these opportunities.

Autonomy is supported when students are given opportunities to formulate their own responses, seek clarification, and contribute ideas without fear of negative evaluation. Providing sufficient time for students to process information, work through questions, and explain their reasoning may be particularly important for students studying in a second language, as it reduces pressure associated with immediate responses. Research suggests that structured opportunities for participation can increase willingness to contribute, particularly among students who may otherwise remain silent (William, 2011). By supporting students' sense of control over their learning, these practices are expected to encourage behavioural engagement.

H2. Providing time for students to process, ask questions, and explain ideas is positively associated with participation.

Relatedness refers to the need to feel connected to others and to experience a sense of belonging within the learning environment. In classroom settings, this is fostered through supportive lecturer behaviour, positive peer interactions, and a welcoming classroom climate. When students perceive that their contributions are valued and that they are part of a supportive academic community, they are more likely to engage both emotionally and behaviourally. This is particularly important for international students, for whom feelings of isolation or social distance may inhibit participation.

The need for relatedness highlights the importance of positive social relationships within the classroom. Supportive peer interactions, welcoming classroom environments, and a sense of belonging can reduce participation anxiety and increase students' willingness to contribute. Previous studies have demonstrated that students who experience greater social connectedness and psychological safety are more likely to participate in classroom discussions and collaborative learning activities (Bethel et al., 2020; Gareis, 2012). Consequently, classroom climates characterised by support and inclusivity should encourage participation.

H3. A supportive classroom climate and peer environment are positively associated with participation.

Importantly, these three needs are interdependent rather than independent. Competence, in particular, appears to play a foundational role in enabling participation, as students are unlikely to engage behaviourally unless they feel capable of contributing. Relatedness and autonomy further shape the extent to which this potential for engagement is realised (Deci & Ryan, 2000).

The integration of these frameworks enables a more comprehensive explanation of participation by linking teaching practices to both engagement dimensions and underlying motivational processes. Instructional clarity supports competence, thereby enhancing cognitive engagement and increasing the likelihood of behavioural participation. Lecturer support fosters a sense of relatedness, and supportive classroom environments strengthen emotional engagement and reduce barriers to contributing. Structured interaction supports autonomy by providing opportunities for active involvement, enabling students to express their understanding through participation. By integrating engagement theory with Self-Determination Theory, this study provides a theoretically grounded framework for examining how lecturer practices influence participation through multiple, interconnected pathways.

Beyond clarity, autonomy support, and social connectedness, engagement theory also emphasises the role of instructional design in stimulating student interest and investment in learning activities. Engaging teaching practices can capture students' attention, increase motivation, and encourage active involvement in classroom activities (Kahu, 2013). When learning experiences are perceived as interesting and meaningful, students may be more willing to participate and share their ideas.

H4. Engaging teaching practices are positively associated with participation.**1.3. Research gap**

Despite extensive research on international student engagement, several important gaps remain. First, there is an empirical gap, as relatively few studies quantitatively examine how specific lecturer-controlled practices influence classroom participation. Much of the existing literature focuses on descriptive accounts of students' experiences rather than on identifying measurable predictors of engagement.

Second, a practical gap exists, as prior research frequently highlights barriers such as language proficiency and cultural adjustment but provides limited evidence on which pedagogical strategies most effectively support participation in classroom settings. As a result, there is insufficient guidance for educators seeking to foster engagement in increasingly internationalised learning environments.

Third, there is a theoretical gap, as engagement and motivational frameworks are often applied in isolation. While engagement theory identifies different dimensions of student involvement, it does not fully explain the motivational processes underlying participation. Conversely, motivational theories such as Self-Determination Theory explain why students engage but are less frequently applied to specific classroom practices in higher education contexts.

This study addresses these gaps by integrating qualitative and quantitative methods to examine how lecturer-controllable practices shape participation among Chinese students in a UK business programme. By combining engagement theory with Self-Determination Theory, the study provides a theoretically grounded analysis of how instructional design influences student participation.

1.4. Contribution to the literature

First, it provides empirical insight into how lecturer-controllable practices, such as structured guidance, clear expectations, and supportive responses to questions, are positively associated with classroom participation among Chinese students in the UK context. Second, by combining qualitative and quantitative approaches, the study links student-reported perceptions to participation outcomes, moving beyond descriptive accounts of transitional challenges.

Third, the findings illustrate how classroom design may support engagement in culturally diverse settings. The study applies established engagement and motivational perspectives (Deci & Ryan, 2000; Kahu, 2013) to demonstrate how instructional conditions shape participation in practice. Overall, these results suggest that classroom structure and relationships influence participation more than student background.

2. Literature review

2.1. Language, participation, and academic adjustment

A substantial body of research has examined the challenges international students face when studying in English-medium higher education systems. Language proficiency consistently emerges as a significant factor influencing classroom participation. Students studying in a second language may struggle to follow rapid discussion, have limited time to process and ask questions, interpret discipline-specific terminology, and articulate ideas confidently in public settings (Li, 2025; Sawir, 2005; Vasquez Diaz & Iqbal, 2024; Wang et al., 2017). Reduced confidence in spoken English has been associated with lower levels of voluntary participation and increased preference for private clarification after class (Haxton et al., 2019; Huang, 2006). Research focusing specifically on Chinese students highlights similar transitional pressures. Liu et al. (2016) document academic and communicative challenges during adjustment to Western higher education contexts, while Wang (2018) identifies language-related anxiety and uncertainty regarding classroom expectations as persistent concerns. These pressures may interact with assessment practices that reward verbal participation, potentially reinforcing reluctance to contribute during live discussion.

Beyond linguistic competence, adaptation to unfamiliar academic conventions may also shape participation patterns. Students moving from examination-oriented or teacher-directed educational systems may initially experience uncertainty regarding expectations for independent analysis and open debate (Ryan & Viete, 2010; Turner, 2006). Earlier studies often framed this as a cultural contrast between memorisation-based learning and critical discussion (Bush & Haiyan, 2000; Hsieh, 2012; Tweed & Lehman, 2002). However, more recent research cautions against interpreting participation differences as static cultural traits, emphasising instead the situational and contextual nature of engagement (Cheng & Adekola, 2022; Holliman et al., 2024). Holliman et al. argue that Chinese students may demonstrate agency in less visible ways, including attentive listening, written preparation, and selective verbal contribution. Such findings suggest that low verbal participation does not necessarily indicate disengagement but may reflect perceived risk, linguistic caution, or uncertainty regarding classroom norms. This perspective encourages closer examination of how instructional conditions shape the visibility and form of engagement.

2.2. Social connectedness and classroom climate

Engagement research also highlights the importance of social and relational dimensions of learning. International students' sense of belonging and host-national connectedness has been linked to psychological adjustment and academic confidence (Bethel et al., 2020; Yan & Berliner, 2009; Yeh & Inose, 2003). Feelings of social isolation or minority status may heighten anxiety in classroom participation, particularly in interactive formats. Studies examining intercultural friendship and peer dynamics indicate that classroom atmosphere can influence willingness to speak (Gareis, 2012). Students who perceive their environment as welcoming and inclusive, with lecturers supporting a positive classroom climate, are more likely to participate actively. Conversely, uncertainty about peer reactions or fear of making mistakes publicly may reduce engagement (Marilyn & Renee, 2000). These findings suggest that participation is not merely an individual attribute but is shaped by perceived psychological safety within the learning environment.

Within UK higher education, Crawford and Wang (2015) identify attainment differences between Chinese and home students and highlight the importance of understanding how learning approaches interact with institutional expectations. Richardson (2012) similarly notes that perceptions of teaching quality and clarity are associated with academic outcomes. While these studies primarily examine attainment, they underscore the broader relevance of classroom experience in shaping academic performance. Despite this recognition, relatively few studies isolate classroom-level practices that directly influence participation behaviours among Chinese students in UK settings. Much of the literature focuses on adjustment experiences or performance outcomes rather than examining the pedagogical mechanisms that may encourage or inhibit engagement in situ. This indicates that peer dynamics and classroom climate may also influence participation behaviour.

2.3. Lecturer practices and pedagogical design

Emerging scholarship emphasises the role of lecturer behaviours and instructional design in shaping student engagement. Multidimensional models of engagement position institutional and classroom conditions as central influences (Kahu, 2013; Kahu & Nelson, 2018). From this perspective, engagement arises through interaction between student characteristics and the educational environment rather than being determined solely by prior background.

Supportive pedagogical practices such as lecturer guidance, structured interactional tasks, and responsive feedback have been associated with increased student confidence and participation (Kahu & Nelson, 2018). When expectations are clearly communicated and terminology is explained, students may experience greater perceived competence. This aligns with Self-Determination Theory (Deci & Ryan, 2000), which emphasises the importance of competence, autonomy, and relatedness in motivating active engagement.

For international students, clarity of expectations may be particularly significant. Ambiguity in task instructions or assessment criteria can amplify existing linguistic uncertainty (Sawir, 2005). Conversely, scaffolding techniques that break tasks into manageable components and allow processing time may reduce the risk of participation. Haxton et al. (2019), examining Chinese students in a UK transnational programme, highlight mismatches between students' expectations and the pedagogical style, suggesting that lecturers' communication practices are central to adjustment. Recent reviews call for greater emphasis on lecturer agency in internationalised classrooms (Lomer & Mittelmeier, 2023). Rather than positioning international students primarily as recipients of support, these perspectives encourage examination of how teaching practices can foster inclusive participation. Holliman et al. (2024) similarly advocate recognising diverse forms of engagement and designing classroom environments that allow multiple modes of contribution.

Although there is growing acknowledgement of the importance of pedagogical design, empirical studies linking specific lecturer-controllable practices to measurable participation outcomes remain limited. Much of the literature identifies broad principles such as inclusivity or clarity, without quantifying their relative influence on participation behaviour.

Taken together, these studies suggest that lecturer guidance, clarity, and responsiveness are likely to play a central role in shaping participation, alongside opportunities for structured interaction and a supportive classroom climate. These relationships are examined empirically in the hypotheses that follow. These studies collectively point to lecturer guidance, opportunities for students to process and ask questions, and a supportive classroom climate as central influences on participation.

2.4. Identifying pedagogical levers for engagement

Taken together, the literature suggests that classroom participation among Chinese students is influenced by linguistic confidence, transitional adjustment, social climate, and instructional design. However, the relative importance of these factors within specific UK institutional contexts remains underexplored. While language barriers are frequently identified as primary obstacles (Huang, 2006; Li, 2025; Wang et al., 2017), evidence also indicates that classroom structure and lecturer responsiveness may significantly moderate their impact (Cheng & Adekola, 2022; Kahu & Nelson, 2018). Students may be more willing to contribute when activities are clearly framed, time is provided for preparation, and questions are welcomed without negative evaluation.

Existing research provides valuable descriptive accounts of Chinese students' academic experiences (Holliman et al., 2024; Liu et al., 2016; Wang, 2018) and highlights broader patterns of attainment (Crawford & Wang, 2015). However, there remains limited empirical work that integrates qualitative insights with quantitative modelling to identify which classroom practices most strongly predict participation behaviour. The present study builds on engagement theory (Kahu, 2013) and motivational principles (Deci & Ryan, 2000) to examine how reported motivational dimensions relate to classroom participation among Chinese students in a UK business programme. By combining focus group insights with exploratory factor analysis and logistic regression, the study moves beyond descriptive accounts to investigate the practical pedagogical levers associated with engagement. In doing so, it aims to provide evidence-based insight into how classroom design and lecturer interaction shape participation within internationalised higher education contexts.

3. Methodology

3.1. Sample and participants

The study was conducted with Chinese undergraduate students enrolled in a UK university through an international partnership programme. 110 students who had completed their first three years of study in China joined the UK institution for their final undergraduate year. Participants were aged between 21 and 23 and enrolled in business-related programmes, including BA Accounting and Finance and BSc Finance and Business. All participants had completed three years of study in China prior to transitioning to the UK. Participants were recruited via email invitation to the full cohort. Participation was voluntary and based on self-selection. The study was conducted within the authors' institutional teaching context, providing direct insight into student engagement experiences.

Measures were taken to ensure anonymity and minimise potential power dynamics that could influence responses. Following ethical approval and informed consent procedures, the main author invited all students to participate via email. Eighty students responded, and 61 agreed to take part. This sample provides a focused view of students transitioning from a Chinese educational context into the UK system and forms the basis of the study's questionnaire data. While the sample size is modest, the mixed-methods approach enables analytical rather than statistical generalisation, offering insight into pedagogical processes rather than population estimates.

3.2. Measurement of classroom participation

Classroom participation was conceptualised as students' active engagement in learning activities, including asking questions, responding to prompts, contributing to discussions, and interacting with peers and tutors during teaching sessions. Such forms of engagement are widely recognised as important indicators of active learning and classroom involvement. Rather than relying on direct observation, participation was assessed through students' self-reported confidence in engaging in these classroom activities.

Participants were asked whether they felt confident participating in class activities. Responses were recorded as a binary variable, with confident students coded as 1 and unconfident students coded as 0.

The study did not employ a formal participation rubric, structured observation protocol, or external evaluators. Consequently, the measure reflects students' perceptions of their confidence in classroom participation rather than objectively observed participation behaviour. This approach was considered appropriate because the study aimed to explore psychological and contextual factors associated with students' willingness and confidence to participate in classroom activities.

3.3. Focus group design

To inform questionnaire development, 20 students were selected from the larger sample to participate in focus group discussions. Focus group participants were selected based on availability and willingness to participate. While this approach facilitated participation, it may introduce self-selection bias, a limitation which is acknowledged. Students were organised into groups of six to eight, each attending three tutorial-style sessions lasting approximately 1 h. The sessions were split into two types of sessions. The first two sessions combined class material with discussions about studying abroad. The final session focused on barriers and motivators of classroom participation. The first two sessions were teacher-led. The final session was student-led. In the final session, students were the primary generators of knowledge by identifying and discussing the factors that hindered or encouraged participation. At the conclusion of the final session, participants agreed on key themes, including language barriers, lecturer responsiveness, and classroom atmosphere. These insights directly informed the design of survey items. For completeness, we note that the author who led the first two sessions made every effort not to influence participants' responses in the third session. However, we acknowledge that a lecturer potentially can unconsciously influence debates.

The survey questions were broadly categorised into three types: (i) factual questions (e.g., degree subject), (ii) attitudinal and perceptual questions, and (iii) open-ended prompts. Example items included: "How important is [factor] in preventing you from participating in class?" and "How important is [factor] in encouraging your class participation and engagement?"

3.4. Questionnaire development

The first version of the questionnaire was designed by the main author, based on themes identified by students during the final focus group sessions. At this stage, 16 themes were identified as factors which hindered participation (see [Appendix 1.1](#)). 13 factors were identified as motivators to participation (see [Appendix 1.2](#)). Second, a draft version was reviewed by a (expert) co-author, who is experienced in developing questionnaires, designed to report how teaching interventions affect student experience. Third, to ensure that the questionnaire aligned with students' vision, it was pilot-tested with four students. Based on their suggestions, minor revisions were applied. The 16 and 13 themes defined at the initial stage of the questionnaire remained unchanged throughout the questionnaire design. We envision that the above bespoke approach is felicitous, as our student-centred questionnaire offers unique insights. These insights may not be captured using pre-existing instruments.

The questionnaire was administered online to preserve anonymity and encourage honest responses. This approach aligns with established practice in classroom engagement research, where Likert-scale surveys are widely used to capture student attitudes and perceptions ([Gill et al., 2010](#); [Glaister & Buckley, 1998](#)).

Evidence of content validity was established through a multi-stage development process. First, questionnaire items were generated directly from student focus-group discussions, ensuring strong alignment between the instrument and participants' lived experiences. Second, the questionnaire was reviewed by an experienced educational researcher with expertise in survey development. Third, the instrument was pilot-tested with four students, resulting in minor wording revisions. The 16-item barriers questionnaire demonstrated acceptable internal consistency ($\alpha = 0.784$), while the 13-item encouragement questionnaire demonstrated good internal consistency ($\alpha = 0.863$). These findings provide evidence that the instruments were suitable for exploratory investigation of factors influencing classroom participation.

Evidence of construct validity was assessed through exploratory factor analysis. The factor solution demonstrated acceptable interpretability, with factor loadings largely exceeding 0.50 and the retained factors accounting for 72.52% of the total variance. The resulting factor structure was theoretically consistent with the dimensions identified through the focus-group phase and engagement theory. Because the sample size ($N = 61$) was insufficient for robust confirmatory factor analysis (CFA), construct validity was assessed through exploratory rather than confirmatory procedures. Consistent with [Kline \(2016\)](#), CFA generally requires substantially larger samples to produce stable parameter estimates and reliable model fit statistics.

3.5. Data collection and analysis

The regression analysis was conducted to test the hypotheses outlined in [Section 1.4](#), examining whether the identified motivational dimensions predict classroom participation. The analysis proceeded in two stages. First, exploratory factor analysis (EFA) using principal components extraction with varimax rotation was conducted to identify underlying dimensions among the reported motivational factors. The factors correspond to lecturer guidance, time for processing and questions, and classroom climate as outlined in the hypotheses. Principal components analysis with varimax rotation was used to maximise interpretability of factors. Principal components analysis with varimax rotation was employed because the primary objective was to identify a parsimonious and interpretable factor structure. Varimax rotation is commonly recommended when researchers seek to maximise factor interpretability and obtain distinct factor solutions during exploratory analysis ([Hair et al., 2019](#); [Tabachnick & Fidell, 2019](#)). Future studies may apply

oblique rotation techniques. The Kaiser-Meyer-Olkin measure (0.580) indicated acceptable sampling adequacy for exploratory purposes in small-sample educational research, and Bartlett's test of sphericity was significant ($p < 0.001$), supporting factorability.

Second, binomial logistic regression was used to examine whether the identified motivational dimensions predicted reported classroom participation. Given the modest sample size, the regression analysis is interpreted with caution and is intended to identify indicative patterns rather than to establish causal relationships. This methodological design aligns with best practice in applied educational research, where the integration of exploratory and predictive techniques is recommended to capture both the complexity of student perceptions and the practical implications for teaching (Tabachnick & Fidell, 2019).

It should be noted that the sample size for the exploratory factor analysis (EFA) is relatively small in relation to the number of items included in the analysis. With 61 participants and 29 items, the participant-to-item ratio falls below the commonly recommended 5:1 guideline (e.g., Kline, 2016). As a result, the factor structure identified in this study should be interpreted as exploratory rather than definitive. While some methodological research suggests that smaller samples may yield stable solutions under conditions of strong factor loadings (Hair et al., 2019), caution is warranted in interpreting the robustness and generalisability of the findings. This limitation is acknowledged and is further discussed in Section 7.

3.6. Ethical considerations

Participation was voluntary, and students were assured of confidentiality. The study adhered to the university's ethical guidelines, ensuring that data collection respected student privacy, autonomy, and informed consent. All procedures were designed to minimise risk and maximise the integrity of the research process.

4. Research findings

The questionnaire results are summarised in Tables 1 and 2. As shown below, the average values provided by students were subsequently analysed using exploratory factor analysis.

4.1. Factors that hinder participation and engagement by Chinese students in a UK university

As delineated in Appendix 1, the relative importance of factors hindering classroom participation among Chinese students was assessed using mean scores across 16 items.

The findings indicate that language-related challenges are the most significant barriers to participation. The highest-rated factor was language barrier ($M = 4.00$), substantially above the midpoint of the scale, confirming that linguistic confidence remains a primary obstacle to engagement. The second-ranked factor, not knowing the answer to a question ($M = 3.61$), reflects students' reluctance to risk making mistakes in a public setting. Similarly, preferring to ask questions after class ($M = 3.52$) suggests a tendency to seek clarification privately rather than participate openly in class.

A cluster of mid-ranked factors points to the influence of instructional structure and classroom pacing. These include difficulty following in-class discussions ($M = 3.32$) and insufficient time for exercises ($M = 3.26$), indicating that the speed and organisation of teaching can affect students' ability to engage. Such factors highlight the role of classroom design in either constraining or facilitating participation.

Lower-ranked influences were primarily related to social dynamics. For example, feeling like a minority group ($M = 2.42$) and lack of friendliness among group members ($M = 1.97$) were rated as less important barriers. This suggests that, while social factors are present, they are less influential than linguistic and pedagogical conditions. Overall, the results demonstrate that participation is most strongly hindered by language-related challenges and classroom practices, rather than by social discomfort alone.

4.2. Factors that motivate participation and engagement by Chinese students in a UK university

As illustrated in Appendix 1.2, the relative importance of factors motivating classroom participation and engagement among Chinese students was assessed using mean scores across 13 items. The factors broadly reflect the lecturer's guidance, opportunities to ask questions, and the classroom climate.

The findings indicate that lecturer-driven practices and classroom dynamics are central to motivating participation. The highest-rated factor was making the class interesting and engaging ($M = 4.13$), followed by sitting next to enthusiastic classmates ($M = 4.10$) and lecturer interest in student questions ($M = 4.06$). These results suggest that both instructional design and the peer environment play key roles in encouraging active engagement.

Several additional high-ranking factors further emphasise the importance of instructional clarity and support. These include providing clear guidance before exercises ($M = 4.03$) and explaining discipline-specific terminology ($M = 4.00$), indicating that students are more likely to participate when expectations and content are clearly communicated. Similarly, personalised support ($M = 3.97$) and a welcoming approach to student questions ($M = 3.90$) highlight the importance of lecturer responsiveness in fostering a supportive learning environment.

Lower-ranked, but still positively rated, factors included speaking slowly and clearly ($M = 3.68$) and allowing additional time for explanation ($M = 3.68$). While these aspects appear less influential than other factors, they nonetheless point to the role of pacing and accessibility in supporting student participation.

Overall, the results demonstrate that participation is most strongly motivated by engaging teaching practices, clear instructional

support, and a responsive classroom environment, with peer dynamics also contributing to students' willingness to engage.

4.3. Factor analysis of motivations

Exploratory factor analysis was used to identify underlying motivational dimensions (Pallant, 2020; Roberts et al., 2023). The information in Table I presents the results of Factor Analysis, utilising the varimax rotation technique. In Table I, Factor analysis condensed the thirteen motivators into four dimensions as previously defined in the questionnaire.²

The table presents cumulative variance in ascending order, consistent with standard reporting conventions. The first factor (lecturer guidance, positive attitude, and assistance provided by the lecturer) accounted for 41.8% of the variance, with strong loadings for clear guidance (0.869), lecturer interest in questions (0.789), and personal support (0.698). This confirms that lecturer behaviour is the most influential driver of engagement. Other factors included time for questions and explanations, clarity of communication, and peer encouragement, each contributing additional variance. Cronbach's alpha for Factor 4 was 0.599, slightly below conventional thresholds. However, this factor contains only two items, and lower alpha values are common for short scales. Given the strong theoretical coherence of the items and the exploratory nature of the study, the factor was retained for subsequent analysis. One item ("Sitting next to enthusiastic classmates who are interested in speaking and sharing ideas") exhibited a loading of 0.436. Although this falls slightly below the conventional 0.50 guideline, exploratory factor analysis literature suggests that loadings above 0.40 may be retained when they are theoretically meaningful and contribute to factor interpretation, particularly in exploratory studies with relatively small samples (Hair et al., 2019). The item was therefore retained because it captures an important aspect of classroom social engagement and improved the conceptual coherence of the factor. Cronbach's alpha for Factor 4 was 0.599, slightly below conventional thresholds. However, this factor contains only two items, and lower alpha values are common for short scales. Given the strong theoretical coherence of the items and the exploratory nature of the study, the factor was retained for subsequent analysis. Taken together, these dimensions provide a structured picture of how teaching practices and classroom conditions motivate participation.

4.4. Correlation analysis

Pearson correlation analysis was conducted to examine relationships between the identified motivational factors.

Table II presents descriptive statistics and correlations for the four factors derived from the exploratory factor analysis. Composite scores were calculated by averaging Likert-scale responses across items loading on the same factor. Averaging preserves the original five-point response scale and facilitates comparison across factors containing different numbers of items. This approach is commonly used when factor analysis indicates that multiple items represent a shared underlying construct (Tabachnick & Fidell, 2019). The resulting composite scores therefore represent the average perceived importance of each motivational dimension. Pearson correlation coefficients were then calculated to examine relationships among the factors.

Whilst strong links exist between Factors such as a helpful lecturer, friendly classmates, a conducive learning environment, and more time allowed for students to ask questions, none are statistically significant at the 0.01 level. Thus, the factors remain sufficiently independent to be treated as distinct predictors, and can therefore be considered to provide unique insights. Moreover, the variance inflation factor (VIF) scores ranged from 1.12 to 1.83, well below the threshold of 5, indicating no multicollinearity concerns.

4.5. Logistic regression

To investigate the factors associated with students' confidence in classroom participation, binary logistic regression was employed. The dependent variable was students' self-reported confidence in engaging in classroom activities such as asking questions, responding to prompts, and contributing to discussions, measured as a binary outcome (confident versus unconfident). Given the dichotomous nature of the dependent variable, logistic regression was considered the most appropriate analytical technique. Unlike standard linear regression, which assumes a continuous outcome variable, logistic regression estimates the probability of membership in one of two categories. Students who participated in the focus groups were excluded from this analysis to minimise potential bias arising from their increased engagement with the research process.

Table III provides the results of empirical tests. Overall, the results show that students who choose not to engage have different attitudes about what motivates them to engage. More specifically, of the four Factors examined, only one, 'guidance, positive attitude, and assistance provided by the lecturer', showed a statistically significant coefficient predicting student participation ($\beta = 0.639$; $p < 0.05$). The model showed overall statistical significance with a chi-square of 10.433 ($p < 0.05$), correctly identifying 76.3 per cent of the observations. The results indicate that the coefficient of 'guidance, positive attitude, and assistance provided by the lecturer' ($\beta = 0.639$) is positive. The remaining factors did not reach statistical significance, suggesting that their direct influence on participation is limited within this model.

The results provide support for H1, as lecturer guidance, positive attitude, and support significantly predicted participation. H2, H3, and H4 were not statistically supported within this model, although descriptive findings suggest they remain contextually relevant.

² we envision that the allocation of motives such as variables to determine the underlying primary dimensions that govern the complete set of 13 motives such as 'Providing clear guidance before starting the exercises' and 'The lecturer shows interest in discussing student questions.'

Table 1
Factor analysis of motivators.

Motives	Factor loads	Eigen-value	% Variance explained	Cumulative %	Cronbach alpha
<i>Factor 1: Lecturer Guidance, positive attitude, and assistance provided by the lecturer</i>		5.440	41.845	41.845	0.818
Providing clear guidance before starting the exercises	0.869				
The lecturer shows interest in discussing student questions	0.789				
Availability of personal support and assistance	0.698				
The lecturer welcomes questions from students in and after class	0.574				
<i>Factor 2: The helpful lecturer, friendly classmates, and conducive learning environment</i>		1.598	12.292	54.138	0.695
The lecturer speaks slowly and clearly	0.844				
The friendly learning atmosphere in the class	0.658				
The lecturer explains the terminology used in teaching	0.540				
Sitting next to enthusiastic classmates who are interested in speaking and sharing ideas	0.436				
<i>Factor 3: More time allowed for students to ask questions, work out and explain doubts</i>		1.331	10.235	64.373	0.767
Ensuring students have enough time to ask individual questions	0.526				
Sufficient time for students to work out answers to the questions in class	0.872				
Allowing more time for students to explain solutions/ideas	0.664				
<i>Factor 4: An engaging class with a passionate lecturer who is open to discussing any questions</i>		1.059	8.144	72.517	0.599
The lecturer makes the class interesting and engaging	0.819				
The lecturer is willing to respond to student questions	0.708				

Notes.

Principal components factor analysis with varimax rotation.

K-M-O Measure of Sampling Adequacy = 0.580.

Bartlett Test of Sphericity = 215.301; $p < 0.000$.

Table 2
Correlation matrix.

Variables	Mean	SD	1	2	3	4
1. Guidance, positive attitude, and assistance provided by the lecturer	3.98	0.77	1.00			
2. More time allowed for students to ask questions, work out and explain doubts	3.89	0.79	0.49**	1.00		
3. The helpful lecturer, friendly classmates, and conducive learning environment	3.60	0.81	0.52**	0.41*	1.00	
4. An engaging class with a passionate lecturer who is open to discussing any questions	4.02	0.82	0.48**	0.45*	0.50*	1.00

Notes.

$N = 61$; SD = Standard Deviation.

* $p < 0.05$; ** $p < 0.01$ (two-tailed).

5. Discussion

In relation to the study's hypotheses, the findings indicate that lecturer-driven factors (H1) play the most significant role in predicting participation, particularly lecturer guidance, opportunities to ask questions, and classroom climate. Off the back of these results, the discussion is structured around Kahu's (2013) engagement framework and Self-Determination Theory (Deci & Ryan, 2000) to explain not only what predicts participation, but also why lecturer-controllable practices exert such influence. The results of this study highlight the complex interplay between linguistic confidence, classroom design, and lecturer responsiveness in shaping participation among Chinese students in internationalised UK business classrooms. While language barriers emerged as the most significant hindrance, the findings demonstrate that lecturer-controllable practices such as providing clear guidance, explaining terminology, and responding supportively to student questions were stronger predictors of engagement. This suggests that participation is not simply a reflection of students' backgrounds or cultural predispositions, but is highly responsive to pedagogical conditions.

5.1. Language barriers and pedagogical moderation

Consistent with prior research, language-related challenges were the most prominent obstacle to participation (Liu et al., 2016; Sawir, 2005; Wang et al., 2017). Students reported difficulty following rapid exchanges, uncertainty about disciplinary terminology, and reluctance to risk public error. These findings echo Haxton et al. (2019) and Huang (2006), who observed that reduced confidence

Table 3

Binomial logistic regression of motivational factors on Chinese students' class participation and engagement.

Variables	Class Participation and Engagement (Confident = 1; Unconfident = 0)	
	Coefficient	Wald statistics
Intercept	1.892	0.064
Factor 1: Guidance, positive attitude, and assistance provided by the lecturer	0.639	3.497**
Factor 2: More time is allowed for the students to ask, work out and explain questions	1.079	0.126
Factor 3: Helpful lecturer, friendly classmates and learning environment	1.251	1.636
Factor 4: An engaging class with a passionate lecturer who is open to discussing any questions	1.354	0.816
Model chi-square $X^2(8)$	10.433**	
Sensitivity	0.706	
Specificity	0.50	
Correct ratio	0.763	
Pseudo R-square: Cox & Snell	0.195	
Nagelkerke	0.512	
N	61	

Note: ** $p < 0.05$ (two-tailed).

in spoken English often leads to a preference for private clarification rather than open contribution. Within the framework proposed by Kahu (2013), these challenges constrain both cognitive and emotional dimensions of engagement. Difficulties in processing academic content limit students' ability to formulate responses, while anxiety associated with speaking in a second language reduces their willingness to contribute. As a result, students may remain attentive yet refrain from participating, highlighting that low levels of behavioural engagement do not necessarily indicate disengagement.

However, the present study shows that lecturer practices can mitigate these barriers. When terminology was explained, pacing was slowed, and preparation time was allowed, students reported greater willingness to participate. This supports Haxton et al.'s (2019) argument that mismatches between student expectations and pedagogical style can be addressed through clearer communication. It also resonates with Self-Determination Theory (Deci & Ryan, 2000), which emphasises the importance of competence: when students feel linguistically competent, they are more likely to engage. This suggests that language-related challenges should not be viewed solely as individual deficits, but as factors that can be mitigated through effective instructional design.

From a self-determination perspective (Deci & Ryan, 2000), these findings suggest that linguistic clarity operates as a key mechanism through which pedagogical practices support motivation. When lecturers explain terminology at a slow pace and allow preparation time, students' perceptions of competence are strengthened, reducing anticipatory anxiety about public failure. This, in turn, lowers the motivational cost of participation. Importantly, lecturer responsiveness also supports relatedness, as students interpret clarification and encouragement as signals that their contributions are valued. Together, these mechanisms help explain why lecturer-controllable practices exert a stronger influence on participation than language proficiency alone.

5.2. Moving beyond cultural explanations

Kahu's (2013) conceptual framework is especially useful in interpreting these findings, as it situates engagement at the intersection of student background, institutional context, and proximal classroom practice. The present results suggest that while students' linguistic histories shape their starting position, it is the educational interface, specifically lecturer practices, that most directly influences behavioural engagement. This reinforces Kahu's argument that engagement is not a fixed individual attribute, but an outcome emerging from ongoing interactions between learners and their learning environment.

Earlier scholarship often attributed lower participation among Chinese students to cultural traditions emphasising teacher authority and memorisation (Bush & Haiyan, 2000; Hsieh, 2012; Tweed & Lehman, 2002). Such accounts suggested that students from examination-oriented systems were less accustomed to interactive teaching styles. Yet more recent research cautions against static cultural interpretations, emphasising the situational and contextual nature of engagement instead (Cheng & Adekola, 2022; Holliman et al., 2024).

The present findings support this shift. While cultural adjustment was acknowledged as a challenge, lecturer-driven practices were more decisive in predicting participation. This suggests that engagement should be understood as dynamic, shaped by the interaction between students and their educational environment (Kahu, 2013; Kahu & Nelson, 2018). In other words, Chinese students' participation is not inherently constrained by cultural background but can be fostered through inclusive pedagogical design.

5.3. Social connectedness and classroom climate

Although linguistic and pedagogical factors were most influential, social dynamics also played a role. Sitting next to enthusiastic classmates and experiencing a welcoming classroom atmosphere were strong motivators of participation. These findings align with Bethel et al. (2020), Yeh and Inose (2003), and Gareis (2012), who highlight the importance of belonging and host-national connectedness in shaping confidence. Feelings of psychological safety, knowing that mistakes will not be ridiculed, were associated

with greater willingness to contribute, echoing Marilyn and Renee (2000) and Yan and Berliner (2009).

Although these social variables did not reach statistical significance in the quantitative analysis, their consistent presence in student responses warrants careful interpretation rather than dismissal. Engagement is increasingly conceptualised as a layered and situational construct (Kahu, 2013), in which distal influences, such as peer climate, may operate indirectly or conditionally rather than as independent predictors. In this study, social dynamics appeared to function as contextual amplifiers, shaping how safe or risky participation felt, particularly for students already managing linguistic insecurity. As such, the influence of social connectedness may be less detectable as a main effect, yet still pedagogically meaningful in shaping participation experiences. This aligns with calls to interpret non-significant findings in engagement research in relation to theory and context, rather than solely through effect size (Kahu & Nelson, 2018).

Interestingly, factors such as minority status or unfriendly group members ranked lower in this study, suggesting that while social discomfort can inhibit participation, it is less decisive than lecturer practices. This does not diminish its relevance, however, as peer dynamics can amplify or dampen the effects of pedagogical design. A supportive classroom climate remains an important complement to instructional clarity.

5.4. Lecturer agency and instructional design

Viewed through Kahu's framework, lecturer agency constitutes a proximal condition that can either constrain or enable engagement across behavioural, emotional, and cognitive dimensions. Clear guidance reduces cognitive load, supportive responses foster emotional safety, and structured opportunities for contribution increase behavioural visibility. The strength of lecturer-driven factors observed in this study therefore provides empirical support for Kahu's contention that classroom-level practices are a primary site for intervention in engagement processes.

The strongest motivators identified were lecturer-driven: making the class engaging, showing interest in student questions, and providing clear guidance. These results underscore lecturers' agency in shaping participation, supporting calls by Lomer & Mittelmeier (2023) for greater emphasis on teaching practices in internationalised classrooms. Rather than positioning international students solely as recipients of support, this perspective highlights educators' responsibility to design inclusive environments.

The factor analysis further reinforced this point, with guidance, positive lecturer attitude, and assistance forming the most influential dimension. This aligns with multidimensional engagement theory (Kahu, 2013), which positions institutional and classroom conditions as central influences. It also reflects Deci and Ryan's (2000) motivational framework, where competence, autonomy, and relatedness are supported through clear expectations, constructive feedback, and approachable lecturer behaviour. These lecturer behaviours therefore function not merely as instructional techniques, but as motivational supports that satisfy students' basic psychological needs for competence, relatedness, and, to a lesser extent, autonomy by legitimising multiple forms and timings of participation.

5.5. Understanding the unsupported hypotheses

While H1 was supported, H2, H3, and H4 were not statistically significant predictors of participation within the logistic regression model. However, this does not suggest that these factors are unimportant. Descriptive findings showed that students consistently rated additional time for questions and explanations, supportive classroom environments, and engaging teaching practices as important motivators of participation. One possible explanation is that these factors operate indirectly rather than as independent predictors. For example, providing additional time for questions may only influence participation when students already feel sufficiently competent to contribute. Similarly, supportive peer relationships and positive classroom climates may create conditions that encourage participation without directly determining whether students speak in class. Engaging teaching practices may increase students' interest and attention, but do not necessarily translate into verbal participation.

A methodological explanation should also be considered. Given the relatively small sample size ($N = 61$), the regression analysis may have lacked sufficient statistical power to detect smaller effects. Future research using larger samples should examine whether these factors exert indirect or conditional influences on participation. Taken together, the findings suggest that lecturer guidance and support represent the strongest direct predictor of participation within this cohort, while other factors may contribute through more complex engagement processes.

5.6. Contribution to existing literature

By integrating quantitative and qualitative approaches, this study extends prior descriptive accounts of Chinese students' experiences (Holliman et al., 2024; Liu et al., 2016; Wang, 2018). It moves beyond documenting transitional challenges to identify specific pedagogical levers that predict participation. In doing so, it complements research on attainment differences (Crawford & Wang, 2015; Richardson, 2012) by showing how classroom practices influence engagement, which in turn may shape academic outcomes.

The findings also contribute to debates about the visibility of engagement. Holliman et al. (2024) argue that Chinese students may demonstrate agency in less visible ways, such as attentive listening or written preparation. Our results support this perspective, showing that low verbal participation does not necessarily indicate disengagement but may reflect perceived risk. By reducing ambiguity and creating low-risk opportunities, lecturers can make engagement more visible without forcing conformity to Western participation norms.

For practitioners, evidence indicates that student participation in internationalised classrooms greatly depends on instructional

design. Effective strategies include: giving clear instructions, clarifying terminology, allowing preparation time, encouraging student questions, and fostering a welcoming environment. These measures lower barriers and motivate students to engage.

Overall, the study illustrates that lecturer-driven practices outweigh background factors in predicting participation among Chinese students in UK business classrooms. While language barriers remain significant, their impact can be moderated through clarity, responsiveness, and inclusive design. Engagement should therefore be understood as a dynamic outcome of pedagogical conditions rather than a fixed cultural trait.

This reinforces the importance of lecturer agency in internationalised higher education and provides evidence-based guidance for fostering participation in culturally diverse cohorts. By recognising the situational nature of engagement and designing classrooms that support competence, autonomy, and relatedness, educators can create environments where all students feel confident to contribute.

6. Conclusion

This study examined classroom engagement among Chinese students in a UK business school and identified pedagogical practices associated with participation. While language-related challenges were evident, lecturer-controllable factors, such as clear guidance, structured interaction, and supportive responses to student questions, have emerged as the strongest predictors of engagement. The findings partially support the study's hypotheses, highlighting lecturer guidance as the most consistent predictor of participation. This suggests that classroom participation among Chinese students may be shaped not only by linguistic or transitional challenges but also by lecturer-controllable aspects of classroom design, including clarity of guidance, structured interaction, and supportive responses to student questions. By reducing ambiguity and creating low-risk opportunities for contribution, lecturers can meaningfully enhance student participation. Although based on a single institutional setting and a modest sample, the results provide applied insight into how instructional clarity and relational support shape engagement. By foregrounding students' perspectives, the study highlights the importance of learning development practices that recognise diverse academic literacies while supporting students' navigation of unfamiliar academic expectations.

While this study focused specifically on Chinese students, the findings are relevant to a broader range of student groups navigating unfamiliar academic environments. Challenges related to confidence, clarity of expectations, and perceived risk in participation are not unique to Chinese students, but are also documented among other international students, first-generation students, mature learners, and linguistically diverse domestic students. In this sense, the pedagogical implications extend beyond a single national group and offer insight into inclusive teaching practices that can support diverse learners across higher education contexts.

7. Limitations

This study is based on a single undergraduate cohort within a UK business school and includes a modest sample size. In this study, the EFA is therefore treated as exploratory rather than confirmatory, providing an initial indication of underlying constructs rather than a definitive factor solution. For example, the Kaiser-Meyer-Olkin statistic (0.580) exceeded the minimum threshold commonly considered acceptable for exploratory factor analysis and thus indicates that the factor solution should be interpreted with caution. Future research using larger samples is required to confirm the stability of the factor structure. The results offer preliminary insights into patterns of student engagement and perceived influences on participation, but require validation through larger samples. Future research should seek to replicate the factor structure using a substantially larger dataset and, where appropriate, employ confirmatory factor analysis to test the robustness of the measurement model. The findings are therefore analytically rather than statistically generalisable. The aim was to illuminate engagement processes within a specific internationalised classroom context rather than to produce population-level claims. In addition, participation was measured through self-report, which may not capture all forms of engagement, particularly less visible or non-verbal contributions. Despite these limitations, the mixed-methods design provides focused insight into how instructional practices relate to participation within a defined setting.

8. Future research

Future research could extend this analysis to other international student groups to examine whether similar pedagogical practices predict engagement across different cultural contexts. Comparative studies across disciplines and institutions would help determine how contextual factors shape participation patterns. This further research could build on these findings by examining classroom participation across larger and more diverse samples, including students from different cultural and disciplinary backgrounds. Future studies could also examine the applicability of these findings to non-international student populations who may experience similar engagement constraints, such as students from widening-participation backgrounds or those with lower academic self-confidence. Also, studies could more directly explore the relative contributions of competence, relatedness, and autonomy using validated instruments grounded in Self-Determination Theory.

Longitudinal research may also clarify how engagement evolves over time as students adjust to new academic environments. Integrating classroom observation with survey data would further strengthen understanding of how instructional design translates into observable participation behaviours. Finally, recent studies investigate whether teaching interventions can affect students' experiences (Lim & Mali, 2021; Mali et al., 2023; Mali & Lim, 2021, 2022). Future studies may develop engagement interventions to determine whether their inclusion can positively impact the student experience.

CRedit authorship contribution statement

Jinning Hong: Methodology, Writing – original draft. **Dafydd Mali:** Investigation. **Martin Roberts:** Writing – original draft. **Victoria Tiplady:** Investigation.

Appendices.

Appendix 1.1

Factors	Rank	Mean	SD
Language barrier	1	4.00	1.183
Not knowing the answer to a question asked	2	3.61	1.202
Preferring to ask questions after class	3	3.52	1.262
New culture, e.g., not understanding the example or joke made in class	4	3.45	1.207
Difficulty in following the in-class discussion between the lecturer and students	5	3.32	1.166
Not enough time provided for reading and discussing the exercise/activity	6	3.26	1.032
Solutions are not provided	7	3.00	1.095
Classmates' behaviours, e.g., silence or ignorance	8	2.94	1.093
Not understanding the lecturer's questions	9	2.90	1.165
The lecturer's attitude in response to the students' questions	10	2.87	1.335
Not being used to participating in group activities	11	2.58	1.205
Insufficient time or opportunities to ask questions in class	12	2.52	1.180
Not being used to the new learning environment	13	2.45	0.850
Feeling like a "minority group" in the class	= 14	2.42	0.958
Avoiding being laughed at by classmates	= 14	2.42	1.057
Group members not being friendly	16	1.97	1.016
N = 61			

Notes.

1. The mean is the average on a Likert scale of 1 (=‘of no importance’) to 5 (=‘of great importance’).
2. SD = Standard Deviation.

Appendix 1.2

Table II
Motivators of Participation

Factors	Rank	Mean	SD
The lecturer makes the class interesting and engaging	1	4.13	0.920
Sitting next to enthusiastic classmates who are interested in speaking and sharing ideas	2	4.10	0.944
The lecturer shows interest in discussing student questions	3	4.06	0.964
Providing clear guidance before starting the exercises	4	4.03	1.016
The lecturer explains the terminology used in teaching	5	4.00	0.966
Availability of personal support and assistance	6	3.97	0.948
The lecturer is willing to respond to student questions	7	3.94	1.031
The lecturer welcomes questions from students in and after class	8	3.90	0.944
The friendly learning atmosphere in the class, e.g., everyone is encouraged to express their thoughts, and nobody laughs at your ideas	9	3.87	1.176
Allowing more time for students to explain solutions/ideas	= 10	3.68	0.909
The lecturer speaks slowly and clearly	= 10	3.68	1.301
Ensuring students have enough time to ask individual questions	12	3.61	1.054
Sufficient time for students to work out answers to the questions in class	13	3.58	1.057
N = 61			

Notes.

1. The mean is the average on a Likert scale of 1 (=‘of no importance’) to 5 (=‘of great importance’).
2. SD = Standard Deviation.

Data availability

Data will be made available on request.

References

- Bergdahl, N., Bond, M., Sjöberg, J., Dougherty, M., & Oxley, E. (2024). Unpacking student engagement in higher education learning analytics: A systematic review. *International Journal of Educational Technology in Higher Education*, 21(63). <https://doi.org/10.1186/s41239-024-00493-y>
- Bethel, A., Ward, C., & Fetvadjev, V. H. (2020). Cross-cultural transition and psychological adaptation of international students: The mediating role of host national connectedness. *Frontiers in Education*, 20, Article 539950. <https://doi.org/10.3389/educ.2020.539950>
- Bush, T., & Haiyan, Q. (2000). Leadership and culture in Chinese education. *Asia Pacific Journal of Education*, 20(2), 58–67. <https://doi.org/10.1080/02188791.2000.10600183>
- Cheng, M., & Adekola, O. (2022). Promoting acts of kindness on campus: Views of Chinese international students in the UK. *Intercultural Communication Education*, 5(1), 17–32. <https://doi.org/10.29140/ice.v5n1.495>
- Crawford, I., & Wang, Z. (2015). The impact of individual factors on the academic attainment of Chinese and UK students in higher education. *Studies in Higher Education*, 40(5), 902–920. <https://doi.org/10.1080/03075079.2013.851182>
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Gareis, E. (2012). Intercultural friendship: Effects of home and host region. *Journal of International and Intercultural Communication*, 5(4), 309–328. <https://doi.org/10.1080/17513057.2012.691525>
- Gill, J., Johnson, P., & Clark, M. (2010). *Research methods for managers* (4th ed.). London: Sage.
- Glaister, K. W., & Buckley, P. J. (1998). Measures of performance in UK international alliances. *Organization Studies*, 19(1), 89–118.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Boston, MA: Cengage Learning.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London: Routledge. <https://doi.org/10.4324/9780203887332>
- Holliman, A. J., Bastaman, A. S., Wu, H. S., Xu, S., & Waldeck, D. (2024). Exploring the experiences of international Chinese students at a UK university: A qualitative inquiry. *Multicultural Learning and Teaching*, 19(1), 7–22. <https://doi.org/10.1515/mlt-2022-0020>
- Hsieh, H. H. (2012). Challenges facing Chinese academic staff in a UK university in terms of language, relationship and culture. *Teaching in Higher Education*, 17(4), 371–383. <https://doi.org/10.1080/13562517.2011.641001>
- Huang, J. (2006). English abilities for academic listening: How confident are Chinese students? *College Student Journal*, 40(1), 218–226.
- Iannelli, C., & Huang, J. (2014). Trends in participation and attainment of Chinese students in UK higher education. *Studies in Higher Education*, 39(5), 805–822. <https://doi.org/10.1080/03075079.2012.754863>
- Kahu, E. R. (2013). Framing student engagement in higher education. *Studies in Higher Education*, 38(5), 758–773. <https://doi.org/10.1080/03075079.2011.598505>
- Kahu, E. R., & Nelson, K. (2018). Student engagement in the educational interface. *Higher Education Research and Development*, 37(1), 58–71. <https://doi.org/10.1080/07294360.2017.1344197>
- Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). New York, NY: Guilford Press.
- Laranjeira, M., & Teixeira, M. O. (2025). Relationships between engagement, achievement and well-being: Validation of the Engagement in Higher Education Scale (EiHES). *Studies in Higher Education*, 50(4), 756–770. <https://doi.org/10.1080/03075079.2024.2354903>
- Li, H. (2025). Teaching academic English in higher education: Strategies and challenges. *Frontiers in Education*, 10, Article 1559307. <https://doi.org/10.3389/educ.2025.1559307>
- Lim, H. J., & Mali, D. (2021). Can an intercultural rhetoric intervention improve academic performance? An exploratory study using Korean (EFL) students. *International Journal of Management in Education*, 19(3), Article 100542. <https://doi.org/10.1016/j.ijme.2021.100542>
- Liu, D., Vogel, L. R., & MacLeod, J. (2016). Mitigating transitional challenges of Chinese students in U. S. Higher education. *Higher Education Studies*, 6(3), 100–113. <https://doi.org/10.5539/hes.v6n3p100>
- Mali, D., Lim, H. J., Roberts, M., & Fakir, A. E. (2023). An analysis of how a collaborative teaching intervention can impact student mental health in a blended learning environment. *International Journal of Management in Education*, 21(3), Article 100853. <https://doi.org/10.1016/j.ijme.2023.100853>
- Mali, D., & Lim, H. (2021). How do students perceive face-to-face/blended learning as a result of the Covid-19 pandemic? *International Journal of Management in Education*, 19(3), Article 100552. <https://doi.org/10.1016/j.ijme.2021.100552>
- Mali, D., & Lim, H. J. (2022). Can the introduction of a research-informed teaching intervention enhance student performance and influence perceptions? *Accounting Education*, 31(3), 322–346. <https://doi.org/10.1080/09639284.2021.2014914>
- Marilyn, E. R., & Renee, S. T. (2000). Concerns, values, stress, coping, health and educational outcomes of college students who studied abroad. *International Journal of Intercultural Relations*, 24(1), 409–435. [https://doi.org/10.1016/S0147-1767\(00\)00014-6](https://doi.org/10.1016/S0147-1767(00)00014-6)
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using SPSS for windows* (7th ed.). Maidenhead: Open University Press.
- Reeve, J. (2012). A self-determination theory perspective on student engagement. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 149–172). Springer. https://doi.org/10.1007/978-1-4614-2018-7_7
- Richardson, J. T. E. (2012). The attainment of white and ethnic minority students in distance education. *Assessment & Evaluation in Higher Education*, 37(4), 393–408. <https://doi.org/10.1080/02602938.2010.534767>
- Roberts, M., Shah, N. S., Mali, D., Arquero, J. L., Joyce, J., & Hassall, T. (2023). The use and measurement of communication self-efficacy techniques in a UK undergraduate accounting course. *Accounting Education*, 32(6), 735–763. <https://doi.org/10.1080/09639284.2022.2113108>
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, Article 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Ryan, J., & Viete, R. (2010). Chinese international students in Australia: Creating new knowledge and identities. In J. Ryan (Ed.), *China's higher education reform and internationalisation* (pp. 151–168). Routledge.
- Sawir, E. (2005). Language difficulties of international students in Australia: The effects of prior learning experience. *International Education Journal*, 6(5), 567–580.
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
- Turner, Y. (2006). Chinese students in a HK business school: Hearing the student voice in reflective teaching and learning practice. *Higher Education Quarterly*, 60(1), 27–51. <https://doi.org/10.1111/j.1468-2273.2006.00306.x>
- Tweed, R. G., & Lehman, D. R. (2002). Learning considered within a cultural context. *American Psychologist*, 57(2), 89–99. <https://doi.org/10.1037/0003-066X.57.2.89>
- Universities UK. (2023). International student data. Available at: <https://www.universitiesuk.ac.uk/what-we-do/policy-and-research/publications/features/uk-higher-education-data-international-international-student-data>
- Vasquez Diaz, K. R., & Iqbal, J. (2024). Challenges faced by international students in understanding British accents and their mitigation strategies: A mixed methods study. *Education Sciences*, 14(7), 784. <https://doi.org/10.3390/educsci14070784>
- Wang, I. K. H. (2018). Long-term Chinese students' transitional experiences in UK higher education: A particular focus on their academic adjustment. *International Journal of Teaching and Learning in Higher Education*, 30(1), 12–25.
- Wang, I., Ahn, J. N., Kim, H. J., & Lin-Siegler, X. (2017). Why do international students avoid communicating with Americans? *Journal of International Students*, 7(3), 555–582. <https://doi.org/10.32674/jis.v7i3.291>
- William, D. (2011). *Embedded formative assessment*. Bloomington, IN: Solution Tree Press.
- Yan, K., & Berliner, D. C. (2009). Chinese international students' academic stressors in the United States. *College Student Journal*, 43(4), 939–960.
- Yeh, C. J., & Inose, M. (2003). International students' reported English fluency, social support satisfaction, and social connectedness as predictors of acculturative stress. *Counselling Psychology Quarterly*, 16(1), 15–28. <https://doi.org/10.1080/0951507031000140432>