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How Learning Satisfaction Forms in Vocational English Classrooms: A Qualitative Study of the Interactions Between Psychosocial Learning Climate, Self-Efficacy, and Engagement

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Abstract

Learning satisfaction is widely used as an indicator of teaching effectiveness in vocational education, specifically in learning English, yet existing research largely explains it through variable-based models that treat classroom climate and learner traits as independent predictors. This study examines how learning satisfaction develops through classroom experience by analysing open-ended responses from 371 vocational college students enrolled in the College English Course in China. Using qualitative content analysis, the study identifies interactional mechanisms linking classroom practices, self-efficacy formation, and learner engagement. Findings indicate that teacher feedback, peer interaction, participation opportunities, and perceptions of fairness do not directly influence satisfaction; instead, they generate experiential cues from which learners infer their capabilities to use English. These evolving efficacy judgments shape participation, and the accumulation of participation experiences informs students' evaluation of progress. Building on these insights, the study proposes the Cycle of English Learning Satisfaction as a process framework that explains how satisfaction emerges through recursive interactions among the classroom environment, efficacy formation, and engagement. The study contributes theoretically by reframing satisfaction as a developmental outcome rather than a static evaluation, methodologically by demonstrating the value of large-scale qualitative analysis of student voice, and practically by highlighting the importance of classroom systems that consistently generate interpretable success experiences. The findings offer an integrated account of how instructional practice, social interaction, and psychological development combine to produce learning satisfaction in vocational English settings.

1. Introduction

Learning satisfaction has become a central concern in higher and vocational education, particularly in language courses that are expected to support both academic development and employability. In the context of English education in Chinese vocational colleges, satisfaction is often treated as a key indicator of teaching effectiveness, learner engagement, and institutional quality. Previous research has consistently linked positive satisfaction outcomes to factors such as teacher competence, course design, and learner motivation, typically modelling these relationships through survey-based approaches that identify statistically significant predictors of satisfaction (Kuo et al., 2021; Liu et al., 2022; Nguyen et al., 2017). Within this dominant explanatory framework, classroom climate variables and psychological factors such as self-efficacy are treated as independent influences whose additive effects shape students' evaluations of their learning experience.

While this body of work has clarified which factors correlate with satisfaction, it offers a limited explanation of how satisfaction actually develops through classroom experience. Variable-based models tend to conceptualise satisfaction as a relatively stable outcome produced by instructional inputs, leaving largely unexplored the interactional processes through which learners interpret classroom events, construct beliefs about their own capability, and form evaluations of their progress. Research on classroom climate demonstrates that teacher support, peer interaction, and fairness structures influence learners' emotional and motivational engagement (Fraser, 1998; Lei & Zhou, 2018). At the same time, self-efficacy theory shows that learners' confidence emerges from mastery experiences, feedback, social comparison, and emotional regulation generated within those very interactions (Bandura, 1997; Schunk & DiBenedetto, 2020). Satisfaction research, however, has rarely integrated these perspectives in a way that explains how classroom interaction, psychological interpretation, and evaluation unfold over time.

Taken together, these strands suggest that satisfaction cannot be adequately understood as the simple result of teaching quality or individual motivation. Instead, it may be more accurately conceptualised as a developmental outcome emerging from recursive classroom processes in which interaction generates efficacy-relevant experiences, those experiences shape learners' confidence and participation, and the accumulation of participation informs their evaluation of learning. Yet empirical research grounded in students' lived accounts of this process remains limited, particularly in vocational English contexts where learners often enter with diverse academic backgrounds, varied proficiency levels, and strong employment-oriented expectations.

This study addresses this gap by examining how vocational college students themselves describe the formation of English learning satisfaction in the College English Course (CEC). Drawing on qualitative content analysis of 371 student responses, the study seeks to move beyond identifying predictors of satisfaction and instead to explain the processes through which satisfaction is constructed through classroom interaction. In doing so, the research advances three related arguments. First, it proposes that psycho-social classroom practices operate as mechanisms that generate the informational experiences from which learners infer their own capability. Second, it conceptualises self-efficacy not as a stable predictor but as a developmental judgment continually shaped by participation and feedback. Third, it reconceptualises learning satisfaction as an emergent state arising from recursive cycles of interaction, efficacy formation, and engagement.

Accordingly, the study makes four contributions. Theoretically, it modifies prevailing models of learning satisfaction by shifting the explanatory focus from independent variables to interactional processes linking classroom climate, efficacy development, and evaluation. Methodologically, it demonstrates the value of large-scale qualitative analysis grounded in student voice for uncovering mechanisms that survey-based approaches may overlook. Contextually, it provides insight into the under-researched population of Chinese vocational English learners whose experiences are shaped by both institutional reform and employment-oriented expectations. In practice, it offers a process-based framework for course design that emphasises the roles of structured participation, interpretable feedback, and equitable interaction in sustaining engagement and satisfaction over time.

Guided by these aims, the study addresses the following research questions:

1. How do vocational college students describe the classroom processes that influence their satisfaction with the College English Course?
2. In what ways do psycho-social classroom interactions shape learners' developing sense of English-learning capability?
3. How do participation experiences and evolving efficacy judgments contribute to students' evaluation of their learning over time?

By foregrounding students' own accounts of these processes, the study seeks to provide a more integrated explanation of how learning satisfaction develops in vocational English classrooms and to offer a framework that links instructional practice, social interaction, and psychological development within a single model.

2. Literature Review

To situate the present study within relevant scholarship, this section reviews three interconnected bodies of literature: research on English learning satisfaction in vocational education, theoretical and empirical work on classroom climate, and self-efficacy theory as it applies to language learning.

2.1 English Learning Satisfaction in Vocational Education

Research on English learning satisfaction in higher and vocational education has largely been shaped by variable-based explanatory models that conceptualise satisfaction as an outcome predicted by instructional quality, learner motivation, and course design. Studies frequently examine how factors such as teacher competence, assessment structures, technological integration, and learning attitudes influence students' reported satisfaction levels, often using regression or structural equation modelling to identify statistically significant predictors (Kuo et al., 2021; Liu et al., 2022; Nguyen et al., 2017). Within this paradigm, satisfaction is typically treated as a measurable evaluation produced by the additive effects of these instructional and psychological variables.

While this approach has generated important insights, it provides limited explanation of how satisfaction develops through learners' classroom experience. Variable-based models are well-suited to identifying correlations between predefined constructs, but they are less capable of capturing the interactional processes through which learners interpret events, construct beliefs about their own competence, and evaluate their progress. By reducing complex experiences to cross-sectional measurements, these models tend to portray satisfaction as a relatively stable endpoint rather than as a dynamic state shaped by ongoing participation, feedback, and emotional response. Emerging research on learning emotions and engagement suggests that students' evaluations of learning are closely linked to evolving experiences of competence, belonging, and progress rather than to isolated instructional features alone (Wang & Wang, 2025). This observation indicates the need for explanatory frameworks capable of tracing how classroom processes unfold over time to produce satisfaction.

2.2 Classroom Climate as an Interactional Mechanism

Classroom climate has traditionally been conceptualised as a contextual condition influencing motivation, engagement, and achievement. Dimensions such as teacher support, student involvement, peer cohesiveness, and equity are commonly treated as environmental variables that either facilitate or constrain learning outcomes (Fraser, 1998; Lei et al., 2018). Within this framing, climate functions primarily as a background factor that moderates educational processes rather than as a mechanism that produces them.

However, when examined through the lens of social learning and motivational theory, classroom climate can be understood more productively as the setting in which competence-relevant experiences are generated. Supportive instruction, collaborative interaction, and predictable participation structures do more than create a positive atmosphere; they produce the interactional events from which learners infer whether they are capable of succeeding. Teacher scaffolding structures opportunities for successful task completion, peer interaction provides models of achievable performance, and fair participation norms regulate the emotional conditions under which learners attempt communicative tasks. In this sense, classroom climate operates not simply as context but as the social environment through which information about capability becomes available to learners.

Recent studies reinforce this process-oriented interpretation. Research on teacher responsiveness shows that structured feedback and relational support enhance students' engagement by shaping their interpretation of task success and failure (Kuril et al., 2021; Lena & Nikolov, 2025). Similarly, cooperative learning research indicates that peer interaction contributes not only to knowledge acquisition but also to learners' confidence and emotional readiness to participate (Slavin, 2014). These findings suggest that classroom climate should be understood less as an independent predictor of satisfaction and more as the interactional infrastructure through which competence signals are produced and interpreted.

2.3 Self-Efficacy as a Developmental Process

Self-efficacy has frequently been incorporated into language learning research as an individual psychological predictor of motivation, persistence, and performance. In many empirical models, learners' confidence is treated as a relatively stable trait that explains variation in engagement or achievement (Honicke & Broadbent, 2016; Almasri, 2022). Although this perspective has highlighted the importance of efficacy beliefs, it risks obscuring the processes through which such beliefs are continually formed within classroom interaction.

Bandura's theory emphasises that self-efficacy is not a fixed attribute but a judgment constructed from ongoing interpretation of experience (Bandura, 1997; Schunk & DiBenedetto, 2020). Learners draw on mastery attempts, feedback from significant others, observation of peers, and emotional reactions to determine whether they are capable of succeeding. These sources are inherently social and situational rather than purely internal.

From this perspective, efficacy beliefs emerge through participation itself: each attempt, response, and emotional reaction contributes to an evolving sense of capability.

Recent language learning research increasingly supports this developmental view. Studies show that confidence grows through repeated cycles of participation, feedback, and emotional regulation (Alarcón-Espinoza et al., 2022; Li, 2026), suggesting that efficacy is embedded in classroom processes rather than preceding them (Bandhu et al., 2024). Viewing efficacy as a dynamic construct highlights its role as an intermediate mechanism linking classroom interaction to subsequent engagement and evaluation.

2.4 Toward a Process-Based Model of Learning Satisfaction

Taken together, classroom climate theory, self-efficacy research, and satisfaction studies point toward the need for a process-based explanatory model. Climate research demonstrates that relational conditions shape learners' participation and emotional experience (Fraser, 1998). Self-efficacy theory shows that learners interpret these experiences as signals about their capability (Bandura, 1997). Satisfaction research links positive learning experiences to motivation and persistence but often treats satisfaction as an endpoint rather than a developmental outcome (Richardson et al., 2017). When integrated, these perspectives suggest that satisfaction is best understood as emerging from recursive processes in which classroom interaction produces efficacy-relevant experiences, those experiences shape learners' participation, and the accumulation of participation informs their evaluation of learning.

This interpretation shifts the explanatory focus from independent variables to interactional mechanisms. Rather than asking which factors predict satisfaction, a process-based model seeks to explain how satisfaction forms through cycles of participation, interpretation, and reinforcement. Such a framework is particularly relevant in vocational English education, where learners' engagement is often shaped by immediate perceptions of usefulness, confidence, and progress. By examining students' own accounts of these processes, the present study aims to contribute a more integrated understanding of how classroom interaction, psychological development, and evaluation combine to produce learning satisfaction over time.

3. Methodology

3.1 Research Design

This study adopts a qualitative research design aimed at examining how vocational college students construct and interpret their English learning satisfaction within the College English Course (CEC). The qualitative phase forms part of a broader mixed-method project; however, the present analysis focuses exclusively on students' open-ended responses in order to explore the developmental processes linking classroom interaction, efficacy formation, and evaluation of learning. Qualitative content analysis was selected because it enables systematic examination of large textual datasets while remaining sensitive to participants' language and experiential meaning (Elo & Kyngäs, 2008; Schreier, 2012). The approach combined inductive identification of patterns emerging from student accounts with theoretically informed interpretation grounded in classroom climate and self-efficacy research.

3.2 Participants

The qualitative dataset consists of responses from 371 vocational college students enrolled in the College English Course across institutions in Guangdong province and neighbouring regions in China. Participants were Chinese L1 speakers studying English as a foreign language within practice-oriented vocational programmes representing diverse academic disciplines and proficiency levels. Demographic information, including gender, year of study, and field of specialisation, was collected as part of the larger survey to provide contextual background for interpretation of the qualitative data.

Inclusion criteria

Responses were included in the analysis if they:

i. Addressed at least one of the open-ended prompts in a meaningful way.
ii. Contained interpretable reflections on classroom experience, confidence, or satisfaction.
iii. Were written in complete phrases or sentences rather than isolated keywords.
iv. Represented a unique submission.
v. Short or non-informative responses consisting only of minimal evaluative words were excluded. After applying these criteria, 371 responses were retained as valid qualitative data.

3.3 Data Source and Collection

Qualitative data was collected through open-ended prompts embedded within a larger questionnaire administered to students enrolled in the CEC. The prompts invited students to reflect on factors influencing their satisfaction, classroom environment, and confidence in using English. All responses were written in Chinese to ensure that participants could express their experiences with precision and minimal linguistic constraint.

Responses varied in length from brief reflections of approximately 20–40 Chinese characters to more elaborate accounts exceeding 150 characters, with most responses falling between 60 and 120 characters. Data richness was assessed using three indicators commonly applied in qualitative survey analysis:

i. Presence of experiential details rather than general opinion
ii. Reference to specific classroom interactions or practices
iii. Indication of perceived consequences for confidence, participation, or learning

The majority of responses contained at least one of these indicators, and many contained multiple indicators, suggesting sufficient depth for interpretive analysis despite the survey format.

To preserve conceptual meaning, responses were first read and coded in the original Chinese. Quotations selected for reporting were then translated into English by the research team. Translations were reviewed collaboratively to ensure semantic equivalence and contextual accuracy rather than literal word-for-word correspondence, consistent with recommended cross-language qualitative research procedures (Temple & Young, 2004).

Prior to analysis, the dataset was screened for duplicate entries, incomplete responses, and non-informative submissions. Responses were also reviewed for internal coherence to ensure that each entry reflected a genuine classroom experience. These procedures ensured that the final dataset of 371 responses represented authentic and interpretable student accounts.

3.4 Data Analysis

The analysis followed a structured qualitative content analysis procedure designed to ensure interpretive rigor while remaining grounded in participants' accounts (Elo & Kyngäs, 2008; Schreier, 2012). The process unfolded through five interrelated stages.

First, all responses were read repeatedly in Chinese to establish familiarity with the dataset and to identify preliminary patterns. Analytic memos recorded early observations during this immersion stage. Second, open coding was conducted inductively, assigning descriptive labels to meaningful segments of text, often using participants' wording to preserve experiential meaning (Miles et al., 2014). Third, axial coding organised related codes into broader conceptual groupings based on shared meaning and implied relationships. Fourth, selective coding integrated these groupings into higher-order themes linked to classroom interaction, efficacy formation, and satisfaction development. Finally, themes were synthesised into an explanatory structure describing how these elements interacted across responses.

Category construction followed a hybrid inductive–deductive logic (Mayring, 2014). Codes were clustered according to semantic similarity and experiential focus, then examined in relation to the study's conceptual orientation. Categories were retained only when they met three criteria: recurrence across participants, conceptual distinctiveness, and relevance to the research questions. This approach ensured that findings were both empirically grounded and theoretically meaningful. Two researchers independently coded a subset of responses during the early stages of analysis. Coding outputs were compared, and discrepancies were discussed until conceptual agreement was reached. Differences were used to refine code definitions and clarify analytic boundaries before applying the coding scheme to the full dataset (Miles et al., 2014).

A detailed audit trail was maintained throughout the analysis to strengthen transparency and dependability (Lincoln & Guba, 1985). This documentation included evolving code lists, category definitions, example excerpts, and analytic memos recording decision points. Maintaining this record enabled the research team to trace the development of interpretations from initial coding to thematic synthesis. Thematic saturation was assessed iteratively during later coding stages. New responses were continuously compared with existing categories to determine whether additional conceptual distinctions were emerging. When successive data confirmed rather than extended existing themes, the dataset was considered to have reached thematic redundancy (Guest et al., 2006). Given the size of the sample and recurrence of core experiential patterns, sufficient depth and stability were judged to have been achieved.

3.5 Ethical Considerations

Ethical approval for the study was granted by the Faculty of Technical and Vocational Education at Universiti Tun Hussein Onn Malaysia. Participation was voluntary, and students were informed that their responses would remain anonymous and confidential. They were also informed that open-ended questions were optional and that

they could decline to answer without penalty. These procedures were designed to protect participants' autonomy and ensure compliance with accepted qualitative research ethics (Lincoln & Guba, 1985).

4. Results

Analysis of the 371 student responses indicated that learning satisfaction was described not as an immediate reaction to teaching quality but as developing through classroom processes that shaped confidence, participation, and perceived progress. Four interrelated mechanisms were identified: teacher interaction as a generator of efficacy information, peer interaction as a comparative learning signal, participation as a reinforcing engagement loop, and fairness as a stabilising interpretive condition..

The coding structure, category definitions, and representative examples supporting this analysis are summarised in Table 1, while Table 2 presents the distribution of responses across the four mechanisms. Table 3 provides additional illustrative quotations demonstrating how students linked classroom interaction to confidence development and satisfaction.

4.1 Teacher Interaction as a Generator of Efficacy Information

Students' accounts consistently showed that teacher behaviour influenced how learners interpreted their own capability rather than simply how much they liked the class. Structured explanations, scaffolded tasks, and patient responses to errors were described as moments in which students realised they could succeed.

One student explained:

"When the teacher explains step by step, I feel I can actually finish the task. It makes me less afraid to try speaking."

Another noted:

"If the teacher corrects gently and tells us how to improve, I feel my English is improving, so I want to answer again."

Such responses indicate that teacher actions functioned as informational cues through which learners interpreted their performance. As shown in Table 1, codes related to instructional clarity, feedback style, and responsiveness clustered under the broader mechanism of efficacy generation.

Table 1 *Recommendations for enhancing English learning satisfaction in the CEC*

Examples of original student wording	Open codes	People who mentioned	Times mentioned	Axial code/theme
"Teachers should use more activities, not just lecture all the time."	Interactive methods	54	71	Engaging pedagogy
"I like when we do English games or use videos, it makes class interesting."	Use of games/multimedia	38	55	Engaging pedagogy
"Role plays and mock interviews help me practice English and feel confident."	Authentic activities (role plays, mock interviews, presentations)	47	64	Opportunities for practice and application
"The teacher should explain clearly so I can understand the lesson."	Clear explanations	62	80	Teacher support and encouragement
"Encouragement from the teacher makes me not afraid of making mistakes."	Teacher encouragement	59	73	Teacher support and encouragement
"Teachers should be fair to everyone, not only choose the best students."	Fairness in participation	33	41	Fairness and equity
"Grading should be more fair and transparent."	Fair grading	27	34	Fairness and equity
"We need more chances to speak English in class, not just listen."	More speaking opportunities	52	68	Opportunities for practice and application

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Examples of original student wording	Open codes	People who mentioned	Times mentioned	Axial code/theme
"Homework and quizzes help me remember better."	Practice and review	35	48	Opportunities for practice and application

The frequency distribution in Table 2 further suggests that this mechanism was one of the most commonly referenced processes in students' descriptions of their learning experience. These findings indicate that teacher interaction did not influence satisfaction directly. Instead, it shaped the mastery experiences and evaluative signals from which learners constructed beliefs about their developing ability.

Table 2 *Psycho-social classroom environment dimensions shaping satisfaction*

Examples of original student wording	Open codes	People who mentioned	Times mentioned	Axial code/theme
"The teacher's step-by-step guidance was very helpful."	Step-by-step guidance	38	44	Teacher Support (TSP)
"The teacher should explain clearly so I can understand the lesson."	Clear explanations	62	80	Teacher Support (TSP)
"The teacher's encouragement makes me not afraid of making mistakes."	Teacher encouragement	59	73	Teacher Support (TSP)
"A kind teacher lowers my anxiety which leads to more practice."	Low-anxiety climate from teacher	40	52	Teacher Support (TSP)
"More discussions and less rote memorization will make learning more effective."	Class discussions	45	58	Involvement (INV)
"Interactive activities turn passive learners into active users of English."	Interactive activities	36	49	Involvement (INV)
"Simulated real-life dialogues (buying, asking directions) get me to speak."	Real-life simulations/role-plays	41	55	Involvement (INV)
"During group discussion, I felt more confident to speak more."	Group work participation	34	46	Involvement (INV)
"When classmates are friendly I feel comfortable to speak."	Friendly peer climate reduces anxiety	40	50	Student Cohesiveness (SCH)
"Classmates help me remember vocabulary / share notes."	Peer academic support	33	42	Student Cohesiveness (SCH)
"We prepare tests together."	Collaborative preparation	22	28	Student Cohesiveness (SCH)
"Teacher should give equal chances so weak students are not ignored."	Equal turn-taking/opportunity	33	41	Equity (EQT)
"Equity is important; teacher should not always choose top students."	Avoiding favoritism	28	36	Equity (EQT)
"Fair assessment helps me not lose interest in study."	Fair/transparent assessment	27	34	Equity (EQT)

4.2 Peer Interaction as a Source of Comparative Learning Signals

Students frequently described peer interaction as helping them interpret their own progress. Observing classmates successfully participate provided reference points that influenced how students evaluated their own capabilities.

As one student commented:

"Seeing classmates answer correctly makes me think maybe I can also do it if I try."

Another noted:

"Working in groups makes it easier to speak because everyone is learning together."

These accounts illustrate how peer interaction supplied both observational models and emotional reassurance. As shown in Table 1, codes relating to peer comparison, cooperative learning, and shared practice were grouped under the mechanism of comparative efficacy interpretation. The illustrative extracts presented in Table 3 further demonstrate how students connected peer interaction with confidence development.

Table 3 *Self-efficacy sources linked to satisfaction*

Examples of original student wording	Open codes	People who mentioned	Times mentioned	Self-efficacy source
"When I succeed in role plays, I feel my English is improving."	Success in role plays	46	61	Mastery Experience (ME)
"Doing a presentation made me realize I can really use English."	Success in presentations	39	54	Mastery Experience (ME)
"Homework and quizzes help me see my progress."	Evidence of progress	35	47	Mastery Experience (ME)
"Encouragement from the teacher makes me not afraid of mistakes."	Teacher encouragement	59	73	Verbal Persuasion (VP)
"Peers cheering me in group work gives me confidence."	Peer encouragement	32	43	Verbal Persuasion (VP)
"Watching classmates present gave me courage to try."	Peer modeling	28	37	Vicarious Experience (VE)
"I learned new ideas by observing my peers' group discussions."	Learning by observation	21	28	Vicarious Experience (VE)
"When the class is relaxed, I feel less nervous to speak."	Reduced anxiety	40	52	Physiological/Affective States (PAS)
"Friendly classmates make me feel comfortable to practice."	Comfortable emotional climate	36	48	Physiological/Affective States (PAS)

Rather than influencing satisfaction directly, peer interaction appeared to shape the interpretive framework through which learners evaluated their own ability and readiness to participate.

4.3 Participation as a Reinforcing Engagement Loop

Students repeatedly linked opportunities to participate with growing confidence and improved evaluation of the course. Participation experiences were not described merely as outcomes of motivation but as events that produced further confidence.

One student wrote:

"When I answer once successfully, next time I am more willing to speak."

Another reflected:

"The more we practice speaking in class, the more I feel I am improving, so I like the course more."

These accounts suggest a reinforcing cycle in which participation produces mastery experiences that strengthen efficacy beliefs, which then increase subsequent participation. As indicated in Table 2, references to participation opportunities and speaking practice appeared across a substantial proportion of responses, supporting the interpretation of engagement as a central mechanism in satisfaction formation.

Satisfaction, therefore, appeared to develop cumulatively through repeated participation experiences rather than through isolated instructional features.

4.4 Fairness and Relational Stability as Interpretive Conditions

Students also emphasised the importance of fairness in teacher attention, participation opportunities, and assessment practices. Perceptions of equitable treatment influenced whether classroom experiences were interpreted as meaningful or arbitrary.

One student explained:

"If everyone has the chance to answer, I feel the class is fair, and I am not afraid to try."

Another stated:

"When only the good students are asked, others feel nervous and don't want to speak."

These responses indicate that fairness served as a condition that shaped how learners interpreted classroom events. As summarised in Table 1, codes related to equity, turn-taking, and consistent evaluation were grouped as stabilising conditions that influenced the informational value of classroom interaction. In classrooms perceived as fair, learners were more likely to interpret feedback as evidence of improvement. Where fairness was uncertain, the meaning of classroom experiences was less clear, weakening the development of confidence and satisfaction.

4.5 Satisfaction as an Emergent Outcome

Across the dataset, satisfaction was rarely described as a direct response to teaching methods or course content. Instead, students framed their evaluation of the course in terms of whether they felt more confident, more willing to participate, and more capable of using English.

As one student summarised:

"If I feel I can speak more than before, then I feel satisfied with the class."

Taken together, the findings suggest that satisfaction develops through a recursive process in which classroom interaction produces efficacy-relevant experiences, those experiences shape participation, and the accumulation of participation informs learners' evaluation of their progress. The mechanisms identified here, and summarised across Tables 1–3, provide the empirical foundation for the process framework discussed in the following section.

5. Discussion

This study challenges the prevailing assumption that learning satisfaction in vocational English education can be adequately explained through the additive effects of instructional quality, classroom climate variables, and individual learner traits. Much of the existing literature treats teacher support, participation structures, and self-efficacy as independent predictors whose statistical relationships account for variation in satisfaction outcomes. The findings presented here suggest a different explanatory logic. Rather than operating as separate influences, psycho-social classroom practices appear to function as interactional processes that generate the experiential cues from which learners construct judgments of their own capability. These evolving judgments then shape participation and persistence, which cumulatively produce satisfaction as a developmental outcome rather than an immediate evaluative response.

By foregrounding students' own accounts, the study modifies both classroom climate research and satisfaction theory. Classroom climate is reframed not simply as a contextual condition facilitating learning but as the primary site in which competence-relevant information is produced, interpreted, and acted upon. Teacher explanations, feedback, peer interaction, and participation structures do not merely improve classroom atmosphere; they shape how learners infer whether they are capable of succeeding. Satisfaction, correspondingly, emerges not as a direct reaction to teaching features but as a cumulative evaluation formed through repeated cycles of interaction, interpretation, and engagement. This process-based account explains not only which factors relate to satisfaction but how satisfaction forms over time, offering a mechanism-oriented framework capable of linking instructional practice, psychological development, and learner evaluation within a single explanatory structure.

5.1 Integrating Classroom Climate, Self-Efficacy, and Satisfaction

The findings suggest that classroom climate, self-efficacy, and satisfaction should be understood as interdependent components of a developmental sequence rather than as separate explanatory variables. Climate shapes the interactional environment in which learners encounter tasks, feedback, and peer comparison. These interactions generate efficacy-relevant experiences, including successful performance attempts, encouragement from teachers, observation of peers, and emotional responses to participation. Learners interpret these experiences to form judgments about their capability, and these judgments influence whether they engage in subsequent learning activities. Participation then produces additional mastery experiences, reinforcing or weakening efficacy beliefs and informing students' evaluation of progress.

This sequence forms a recursive cycle rather than a linear chain. Positive experiences of participation increase confidence, which in turn encourages further engagement and provides additional evidence of competence.

Conversely, limited opportunities for participation restrict the accumulation of mastery experiences, slowing the development of confidence and reducing positive evaluation of learning. Satisfaction, therefore, appears as an emergent outcome of these repeated interaction cycles rather than as a direct effect of any single classroom factor.

5.2 English Learning Satisfaction as a Process Framework

The conceptual model presented in Figure 1 reframes English learning satisfaction as the outcome of a recursive process rather than the direct product of isolated classroom variables. Instead of treating climate, engagement, and satisfaction as separate predictors and outcomes, the model positions them within a sequential system in which classroom conditions generate efficacy-relevant experiences that shape learners' confidence, participation, and ultimately their evaluation of learning.

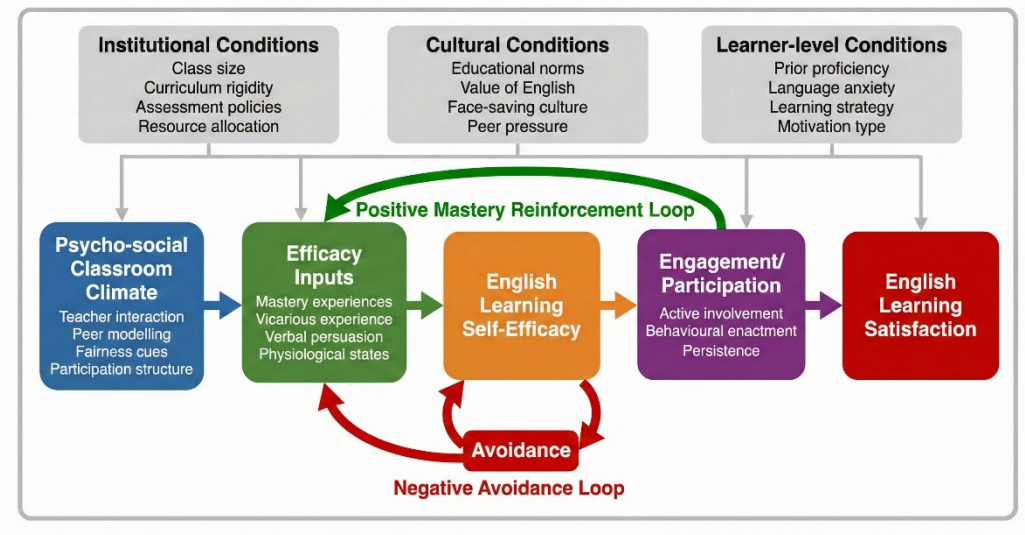

Fig. 1 *Process-based cycle of English learning satisfaction*

The process begins with the psycho-social classroom climate. As shown in the first block of the model, teacher interaction, peer modelling, fairness cues, and participation structure do not influence satisfaction directly. Rather, these features determine the types of learning experiences available to students. Supportive teacher guidance, opportunities to observe peers, equitable participation routines, and predictable classroom interaction collectively produce the informational cues from which learners judge their ability to use English. In this sense, climate functions not as a contextual backdrop but as the mechanism through which efficacy-relevant experiences are produced.

These experiences are captured in the second stage of the model as efficacy inputs. Consistent with social cognitive theory, mastery experiences, vicarious experience, verbal persuasion, and affective states serve as the primary sources of information through which learners form judgments about competence. The model therefore suggests that what matters is not simply whether a classroom is supportive, but whether it reliably generates interpretable signals of progress and capability. Where learners encounter scaffolded success, credible feedback, and manageable emotional conditions, they accumulate evidence that strengthens their belief in their ability to participate effectively in English learning.

The third stage of the model represents the development of English learning self-efficacy. This construct occupies a central position in the framework because it translates classroom experience into behavioural readiness. Learners who interpret classroom events as evidence of capability become more willing to attempt tasks, speak in class, and persist after errors. Conversely, where experiences are interpreted as signals of difficulty or inadequacy, learners may hesitate to participate. In this sense, self-efficacy functions as the cognitive gateway between experience and action.

Participation and engagement form the fourth stage of the model. Importantly, the framework treats participation not only as an outcome of confidence but also as a generator of new learning evidence. When students participate, they create additional opportunities for mastery attempts, receive further feedback, and observe their own improvement over time. This creates the model's positive mastery reinforcement loop. Participation strengthens efficacy by producing new success experiences, and stronger efficacy encourages further participation. Over repeated cycles, this loop stabilises learner confidence and increases the likelihood that students perceive steady progress in their English learning.

However, the model also recognises that this cycle may not always operate in a positive way. Where learners experience anxiety, limited opportunities to participate, or inconsistent feedback, they may withdraw from active engagement. The model, therefore, includes a negative avoidance loop linking reduced participation to diminished efficacy inputs and weaker self-efficacy. In this loop, avoidance restricts access to mastery experiences, which in turn reinforces uncertainty and discourages future participation. Satisfaction is consequently undermined because learners perceive stagnation rather than progress.

English learning satisfaction, shown as the final stage of the model, is therefore conceptualised as a cumulative evaluation emerging from repeated cycles of experience, interpretation, and engagement. Rather than responding to a single teaching factor, students evaluate their learning based on whether they experience increasing capability, meaningful participation, and observable progress over time. Satisfaction, in this framework, reflects the stability of the reinforcing cycle rather than the presence of any single instructional feature.

The outer layer of the model highlights the moderating influence of institutional, cultural, and learner-level conditions. Factors such as class size, curriculum rigidity, educational norms, prior proficiency, and language anxiety do not directly produce satisfaction but shape how the cycle operates. For instance, large classes may reduce opportunities for participation, cultural expectations may influence willingness to speak publicly, and prior proficiency may affect how learners interpret feedback. These conditions, therefore, determine whether the reinforcing loop of mastery and participation can be sustained.

Overall, the model advances the argument that improving English learning satisfaction requires attention to the interactional processes through which classroom experience translates into confidence and participation. Satisfaction emerges not from isolated teaching inputs but from the stability of a recursive system in which classroom climate generates efficacy signals, efficacy shapes engagement, and engagement feeds back into further learning evidence. This process-based perspective provides a more dynamic explanation of satisfaction formation than traditional variable-based approaches and offers a coherent framework for interpreting the study's findings.

5.3 Practical Implications

The implications of this study follow directly from its reconceptualisation of satisfaction as an emergent process rather than a static outcome. If satisfaction develops through recursive cycles in which classroom interaction generates efficacy-relevant experiences that sustain engagement, then improving learning outcomes requires strengthening the mechanisms that support this cycle.

First, course design should prioritise the systematic production of interpretable success experiences. Sequencing tasks to allow visible progress and providing scaffolded opportunities for performance can help ensure that learners accumulate evidence of competence, which the framework identifies as the central driver of engagement and satisfaction.

Second, feedback practices should be treated as informational signals about capability rather than as motivational supplements. Clear, specific, and constructive responses to student performance help learners interpret their progress accurately, supporting the development of efficacy beliefs that sustain participation.

Third, participation structures should be designed to ensure repeated opportunities for engagement across the whole class. Distributed speaking opportunities, collaborative activities, and structured interaction routines expand access to mastery experiences and strengthen the reinforcing loop linking engagement to confidence.

Fourth, fairness and relational stability should be treated as structural features of the learning environment rather than as peripheral concerns. Transparent assessment procedures, equitable participation norms, and predictable classroom routines help stabilise the interpretive conditions under which learners evaluate their progress.

At the institutional level, the findings suggest that reforms focusing solely on curriculum content or technological provision may have limited impact unless they also strengthen the interactional processes through which efficacy develops. Policies supporting manageable class sizes, teacher training in interactive pedagogy, and opportunities for authentic language use may therefore have more sustained effects on learner satisfaction.

6. Conclusion

This study contributes to research on vocational English education by shifting the explanation of learning satisfaction from predictive variables to developmental processes. By analysing students' own accounts of classroom experience, the study demonstrates that satisfaction is not simply a reaction to teaching quality or course design but an emergent outcome of recursive cycles linking interaction, efficacy formation, and participation. In doing so, it reframes classroom climate as the environment in which competence-relevant experiences are produced and reconceptualises self-efficacy as a dynamic judgment formed through participation itself. The proposed framework offers a more integrated explanation of how positive learning evaluations develop and provides a basis for future empirical work to test the recursive relationships identified here. More broadly, the findings suggest that improving vocational English learning requires attention not only to curriculum content

but to the interactional processes through which learners experience competence, engagement, and progress over time.

6.1 Limitations and Directions for Future Research

Several limitations should be acknowledged. First, the study relies on qualitative responses drawn from a single regional context, which may limit the transferability of findings to other institutional or cultural settings. Second, the analysis captures students' retrospective accounts of their learning experience rather than directly observing classroom interaction. Future studies combining classroom observation with longitudinal data could provide stronger evidence of the recursive processes proposed here. Third, while the framework identifies mechanisms linking interaction, efficacy, and satisfaction, the relationships among these elements were not tested quantitatively in this study. Subsequent research using mixed-methods or longitudinal modelling could examine the causal pathways suggested by the framework and test the theoretical propositions derived from it.

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Conflict of Interest

There is no conflict of interests regarding the publication of the paper.

Author Contribution

The authors confirm contribution to the paper as follows: ***Data collection, project administration, literature review, methodology and data analysis:*** *Shen Wenjuan;* ***conceptualization, writing the results and discussion sections, and supervise and review the data analysis process:*** *Muhammad Suhaimi Sulong.*

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