

An Investigation into the Impact of ESP Teaching Based on Flipped Classroom on Learners' Classroom Participation

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Abstract: With the accelerated informatization and digital transformation of higher education, the flipped classroom, as a student-centered teaching paradigm, provides important ideas for the innovation of ESP (English for Specific Purposes) teaching and the improvement of students' classroom participation. This paper expounds on the compatibility between the flipped classroom and ESP teaching. Using literature review and induction methods, it explores the positive impacts of flipped classroom-based ESP teaching on learners' classroom participation from three dimensions: participation motivation, participation depth, and participation scope. Furthermore, it puts forward optimization suggestions for ESP teaching, aiming to provide theoretical support and practical references for meeting students' diverse learning needs, enhancing classroom participation, and improving the quality of ESP teaching.

Keywords: Flipped classroom; ESP teaching; Classroom participation; Impact

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1. Introduction

Under the background of digital economic development and global economic restructuring, society has put forward higher requirements for talents' professional competence and English skills. ESP teaching is characterized by a distinct professional orientation. While imparting linguistic knowledge, it focuses on cultivating learners' communication abilities in specific professional fields, enabling them to use English for professional or vocational communication^[1]. The "College English Teaching Guide (2020 Edition)" points out that college English teachers should fully utilize online teaching platforms and resources to provide students with autonomous learning conditions, promoting their transformation from passive learners to active learners, which provides a direction for the application of flipped classrooms in ESP teaching. However, at present, ESP teaching in some colleges and universities still mainly relies on classroom lectures. Teachers spend a lot of class time on vocabulary, grammar, and discourse teaching, leaving students in a state of passive listening and note-taking. This not only makes it difficult to stimulate students' learning interest but also leads to a decline

in their classroom participation, failing to achieve teaching goals^[1]. As a blended teaching model that subverts the sequence of traditional teaching, the flipped classroom shifts knowledge transmission to before class and focuses on knowledge internalization and interactive inquiry during class, providing students with more opportunities for language communication and interaction. It aligns with the practical needs of ESP teaching for “practicality, pertinence, and interactivity”^[2]. Therefore, exploring the impact of flipped classroom-based ESP teaching on learners’ classroom participation is of great significance for stimulating students’ learning interest and improving the quality of ESP teaching.

2. Compatibility between the flipped classroom and ESP teaching

2.1. Aligning with the applicability of ESP teaching

The core goal of ESP teaching is to cultivate learners’ English application abilities in specific vocational scenarios^[3]. Through the whole-process design of pre-class resource delivery, in-class situational simulation, and post-class vocational expansion, the flipped classroom can accurately match the demand characteristics of different vocational fields. In ESP teaching based on the flipped classroom, teachers can integrate engineering terminology and industry communication scenarios into pre-class preview and in-class interaction, enabling learners to quickly meet the English application needs of vocational positions^[4].

2.2. Adapting to the professionalism of ESP teaching

ESP teaching integrates linguistic knowledge and professional knowledge, covering professional terminology, vocational scenarios, industry cases, and other content. However, traditional classrooms mainly focus on knowledge teaching, making it difficult to cultivate learners’ ability to use language in real situations. In contrast, in ESP teaching based on the flipped classroom, teachers can use online platforms such as Chaoxing Xuexitong and SPOC to split professional English resources into structured online learning content, supporting students to preview and learn knowledge before class. This allows them to have more time to participate in in-class interaction and inquiry, solving the obstacles in applying linguistic knowledge in professional fields^[5-7].

2.3. Responding to the Interactivity of ESP Teaching

ESP teaching emphasizes cultivating learners’ language application skills in vocational scenarios, which requires a lot of time for language communication and interaction. In ESP teaching based on the flipped classroom, teachers can reasonably arrange pre-class learning tasks and use class time to carry out task-based, project-based, and situational teaching activities, creating diverse interactive scenarios. Based on Self-Determination Theory and ICAP Theory, the flipped classroom can meet students’ needs for autonomy, competence, and relatedness, stimulate their intrinsic motivation to participate in in-class interaction, and promote students to shift from “passive acceptance” to “active interaction”, further enhancing their enthusiasm for classroom participation and meeting the interactive needs of ESP teaching^[8].

3. Impacts of flipped classroom-based ESP teaching on learners’ classroom participation

Through theoretical research and empirical testing, the impacts of flipped classroom-based ESP teaching on learners’ classroom participation are mainly reflected in three dimensions: participation motivation, participation depth, and participation scope. These dimensions are interrelated and progressive, jointly

promoting the improvement of classroom participation quality. Both the practice of blended college English teaching and the application of flipped classrooms in ESP courses can confirm this impact law.

3.1. Participation motivation: From “Passive Compliance” to “Active Drive”, activating intrinsic participation willingness

From the perspective of Self-Determination Theory, flipped classroom-based ESP teaching activates learners' motivation to participate in classroom activities by endowing them with autonomous decision-making power, strengthening vocational relevance, and enriching interaction forms.

- (1) Meeting Autonomy Needs and Enhancing Participation Initiative: The flipped classroom grants learners the right to independently choose learning resources and control their learning pace. Learners can select preview resources according to their foundations and arrange preview time. This autonomy can significantly enhance their willingness to participate in classroom activities. Relevant studies further confirm that providing learners with autonomous decision-making space in the flipped classroom has the effect of reducing learning anxiety and stimulating their motivation for active participation^[9]. In addition, the practice of flipped classrooms and blended teaching based on Chaoxing Xuexitong shows that endowing learners with more learning autonomy is the key to improving learning engagement and participation.
- (2) Aligning with Vocational Needs and Enhancing Participation Value Perception: Through pre-class preview, in-class interaction, and after-class expansion, the flipped classroom provides students with more ESP teaching resources from vocational positions, such as technical documents and engineering contracts. Studies have found that when learners perceive the application value of English knowledge in vocational positions, their sense of value identification with classroom activities will increase significantly, making them active inquirers^[10]. This conclusion is highly consistent with the needs of ESP teaching reform, enabling an accurate connection between language teaching goals and vocational position requirements.
- (3) Optimizing Interaction Forms and Stimulating Participation Interest: The flipped classroom moves the knowledge teaching link online in advance, and designs interactive activities such as question exchange and case analysis with the help of online platforms, which helps to mobilize students' enthusiasm for participating in classroom activities. Relevant studies point out that the variety of interaction forms is an important factor affecting students' participation. Designing diverse interaction forms in the flipped classroom helps to solve the problems of insufficient student interest and low participation^[11]. This conclusion has been confirmed in qualitative research on blended teaching: diverse interaction forms have a positive effect on learners' participation performance in class, and their participation interest is significantly increased.

3.2. Participation depth: From “Superficial Participation” to “In-depth Construction”, upgrading classroom participation quality

Participation depth is manifested in cognitive participation, emotional participation, and behavioral participation. Flipped classroom-based ESP teaching promotes students to move from superficial cognition to in-depth construction through pre-class knowledge preparation, in-class inquiry interaction, and after-class expansion application^[12].

- (1) Cognitive Participation: From “Fragmented Reception” to “Structured Construction”: The flipped classroom releases pre-class learning resources through online platforms, guiding students to initially

understand English knowledge and record unresolved problems during preview ^[13]. Relevant research on learning participation in SPOC flipped classrooms points out that structured pre-class preview resources can reduce learners' cognitive load and attract them to participate in in-depth classroom inquiry ^[14]. In ESP classrooms, through classroom activities such as terminology discrimination, text interpretation, and case analysis, students can further establish a structured knowledge system and improve the depth of cognitive participation ^[4].

- (2) Emotional Participation: From “Passive Alienation” to “Active Integration”: Emotional participation is reflected in learners' interest, sense of belonging, and identification with classroom activities. The group collaboration and classroom presentation links in the flipped classroom provide learners with more opportunities for interaction and communication, enhancing their sense of classroom belonging. Relevant studies have found that assigning professional English tasks relying on in-class group cooperation has a significant effect on improving learners' emotional participation, and their learning attitude shifts from “rejection” to “acceptance” or even “liking”. Research on improving classroom participation based on the Chaoxing Xuexitong platform confirms that the interactive feedback mechanism affirms learners' performance, and positive emotional feedback can effectively improve learners' emotional investment level.
- (3) Behavioral Participation: From “Single Participation” to “Diversified Practice”: Behavioral participation is the external manifestation of classroom participation. In traditional ESP classrooms, behavioral participation is mostly dominated by “listening and answering questions”, with a single form. Flipped classroom-based ESP teaching promotes the upgrading of behavioral participation to “diversified practice”: completing basic behaviors such as terminology recitation and text reading through online tasks before class; participating in class through interactive behaviors such as group discussions, situational simulations, and classroom presentations during class; consolidating learning outcomes through extended behaviors such as vocational scenario practice and online homework feedback after class. Research based on ICAP Theory confirms that designing diverse language practice activities throughout the pre-class, in-class, and post-class links can significantly improve learners' behavioral participation level.

3.3. Participation scope: From “Single Dimension” to “Multi-dimensional Coverage”, expanding classroom participation boundaries

Classroom participation includes cognitive, emotional, behavioral, social, and other dimensions. Flipped classroom-based ESP teaching expands the boundaries of classroom participation through online platforms and expands the scope of students' participation in classroom learning ^[4].

- (1) Covering the Cognitive Participation Dimension: Balancing Language Competence and Professional Competence: The core goal of ESP teaching is to cultivate compound abilities of “language + profession”. Through pre-class resource delivery, the flipped classroom realizes the integrated preview of professional knowledge, such as professional terminology and industry texts, with English grammar and expression skills; during class, through inquiry activities, it guides learners to deeply integrate linguistic knowledge and professional knowledge. Experimental studies have shown that flipped classroom-based ESP teaching enables learners to simultaneously improve their English language application abilities and English comprehension abilities in professional fields during classroom participation, achieving dual coverage of the cognitive participation dimension. At the same time, ESP teaching reform in the “Internet +” environment also takes the cultivation of compound abilities of “language + profession” as the core goal,

which is effectively achieved through the flipped classroom model.

- (2) **Covering the Social Participation Dimension: Strengthening Team Collaboration and Communication Abilities:** Through online platforms and classroom activities, the flipped classroom creates interaction and communication opportunities that fit the theme of ESP teaching, supporting learners to conduct exchanges around industry cases, engineering reports, and practical scenarios. Relevant studies point out that group collaboration tasks in the flipped classroom can effectively exercise cooperation awareness and communication abilities, improving students' social participation. At the same time, task-based online and offline interaction scenarios can increase the breadth of learners' interactive participation, enabling them to internalize professional knowledge and improve practical abilities in different scenarios. This conclusion has also been confirmed in qualitative research on college English course learning performance.
- (3) **Covering the Innovative Participation Dimension: Promoting Knowledge Application and Innovative Expression:** The flipped classroom expands the space for learners' classroom participation by assigning after-class review and expansion tasks. Relevant studies propose that through innovative expansion tasks, learners can apply the ESP knowledge learned in class to practical scenarios, improving their emotional, behavioral, and social participation levels. Relevant studies point out that the expansion of this innovative participation dimension can effectively solve the dilemma of traditional ESP teaching of "valuing knowledge over application" and cultivate learners' innovative practical abilities. At the same time, online-offline blended teaching for college English majors based on the flipped classroom also focuses on innovative task design, further strengthening learners' innovative participation abilities ^[15].

4. Conclusions and suggestions

Through theoretical research and inductive reasoning, the influencing factors of ESP flipped classroom teaching on learners' classroom participation are diverse, mainly affected by factors such as the degree of autonomous learning decision-making, the relevance between educational resources and occupations, and classroom interaction forms. Therefore, teachers should start from the characteristics of ESP teaching, develop differentiated teaching resource libraries according to the personalized and diverse autonomous learning needs of students from different majors, covering linguistic knowledge, industry texts, and vocational scenario resources; enrich the interaction forms of flipped classroom teaching, design diversified preview and interactive tasks before class to mobilize students' participation enthusiasm; during class, take preview questions as the guide, carry out interactive activities such as task inquiry, project-based learning, situational simulation, role-playing, and group collaboration to improve participation depth; assign online or offline homework corresponding to vocational scenarios after class to improve students' continuous participation; construct a participation evaluation and incentive mechanism, introduce AI technology to collect students' learning activity trajectories before and after class, seize the opportunities of classroom presentations, group reports, and role-playing during class to form participation evaluation reports through group evaluation and teacher evaluation, and regularly collect students' opinions and feedback to optimize the flipped classroom teaching model. This will truly realize "learner-centered" teaching and further improve learners' classroom participation and comprehensive abilities.

Disclosure statement

The author declares no conflict of interest.

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