

# Generative Mechanisms of Classroom Silence and the Path of Avoidance

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**Abstract:** Classroom silence is complex and discrete problem. It affects the overall teaching and learning quality as well as the high-quality development of both teachers and students. Avoiding classroom silence is a highly dynamic and valuable learning process. This study explores the ecological logic of classroom silence of both teachers and students based on the connotation of classroom silence and deconstructs the endogenous and exogenous mechanisms of classroom silence from the perspectives of escape culture and the continuity theory. Following that, we construct a new model of interaction for elementary school classroom, which includes optimizing the teaching evaluation tools, creating a multidimensional physical technology environment, and fostering an interactive culture of returning to the classroom, so as to promote the overall classroom effectiveness.

**Keywords:** Classroom silence; Escape culture; Continuity theory

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## 1. Introduction

The avoidance of classroom silence is a challenge that must be undertaken to improve the teaching and learning quality. Being a highly complex and discrete problem, classroom silence directly affects the quality of both teaching and learning. As an important part of individual well-being and physical and mental health, students' feelings, including those in the classroom, can influence their ability for self-adjustment, cognitive learning, and knowledge creation <sup>[1-3]</sup>. Students' silence in classroom continues to be of concern to educators and scholars. Creating healthy classrooms is crucial for improving students' physical, mental, and spiritual health and performance <sup>[4]</sup>. However, the reality is that classrooms are generally alienated by the lack of student agency, the spirit of interaction, the single purpose of interaction, and the imbalance of interaction structures. What then are the paths to dealing with the complexity in classrooms? Avoiding classroom silence is one of the ways. The avoidance of classroom silence is conducive to the principle of intersubjective interaction, which enables both teachers and students to engage in linguistic dialogue, shape a negotiated discourse environment, and effectively improve the quality of classroom teaching. The majority of existing studies have focused on subject-specific teaching and learning scenarios, making the findings and conclusions overly dependent on scenarios and leaving little room for theoretical advancements. Secondly, more than half of the studies are concerned with the causal factors of classroom silence without much discussions on its mechanism, thereby failing to explore the optimization path in greater depth. Thirdly, the theoretical perspectives embedded in the studies are still inadequate and lack systematic integration of theories for in-depth exploration.

Therefore, this study fully embeds the perspectives of the continuity theory and escape culture to explore the connotation of classroom silence, deconstruct the mechanism of this phenomenon, and provide effective avoidance paths, so as to provide concrete and authoritative theoretical guidance on the mechanism of generation and the path of avoidance.

## **2. Connotation of classroom silence**

The commitment to cultivating socialist successors who can respond to the challenges of technological change, globalization, and international competition is an important goal of socialist education in the new era. Therefore, it is especially important and urgent to improve the quality of teaching in classroom. An effective and interactive classroom is about students' mastery of knowledge and skills, their physical and mental development, and the cultivation of good moral character. The research on classroom silence began from "dumb classroom" in English language teaching, but later, it was found that this silent phenomenon or behavior is not restricted to English classrooms only<sup>[5]</sup>. Following that, the research gradually extended to general classroom teaching. Although there has been a wealth of research on this silence phenomenon, there is still no mature or widely accepted definition for this concept. It is vague and burdened with numerous communicative significances<sup>[6]</sup>. The current definitions of classroom silence can be broadly classified into two categories: phenomenal and behavioral, with the former considering classroom silence as the phenomenon of students not asking questions in classroom<sup>[7,8]</sup> and the latter considering it as the behavior of students not answering or asking questions in classroom<sup>[9,10]</sup>. These definitions are based on the student perspective, neglecting teachers as the integral part and mechanically separating teachers from students. However, classroom teaching refers to the process of educators guiding educatees in cultivating various learning behaviors. It is an activity involving both teaching and learning in unison<sup>[11]</sup>. Teachers have a noteworthy function in classroom silence and a significant impact on students' silence<sup>[12,13]</sup>. Therefore, the connotation of classroom silence in this study points to the silence of both teachers and students, including when the teachers' minds "escape" from the classroom and they end up teaching mechanically and when the students do not need to ask or answer questions based on their tendency to leave the classroom. The two are interactive, interconnected, and mutually influential.

## **3. Deconstructing the generative mechanisms of classroom silence**

### **3.1. Endogenous mechanism**

One of the theoretical contributions of this study is the analysis of teachers' silence and students' silence from the perspectives of both escape culture and the continuity theory.

First, the generative mechanism of teachers' silence is deconstructed from the perspective of escape culture. "Escape culture" refers to escape from current "workings" of schooling. When teachers selectively reduce their levels of integration into the workings of schooling, they inevitably choose to engage passively in both teaching and learning, constructing the classroom in silence to achieve an internal "escape." Such teachers are not aggressive; instead, they treat students and the classroom in a passive manner. They do not take into account of students' receptiveness and willingness; instead, they "simply and brutally" use the indoctrination approach to mechanically deliver materials to students. Sometimes, they even play videos for students to watch and learn on their own. Ultimately, the classroom is plunged into a "teacher's voice only" or "silent" situation. At the same time, there are teachers who use various "guerrilla tactics" to cope with the school's classroom demands, believing that their "escape" from the classroom is justifiable because neither the school nor the students explicitly resist this "escape culture." As a result, they believe that their "escape" from the classroom can be accommodated to some extent. This continued accommodation will lead to continued "escape," thus creating an infinite cycle that eventually results in the highly damaging "tornado of silence in classroom."

Second, the generative mechanism of students' silence is deconstructed through the lens of the continuity theory. Previous studies have largely attributed students' silence to low self-confidence, poor communication skills, strong herd mentality, and backward learning concepts <sup>[14]</sup>. However, they have yet to analyze the reasons students choose to be silent in classroom from the level of continuity and students' internal needs. The continuity theory, which emphasizes the existence of a complex, ambiguous need for connection between the past and living in the present, states that people can achieve sufficient well-being and self-esteem by maintaining a level of social participation that meets their actual needs. At different stages of life, students have different levels of self-awareness, where they perceive, think, and intend about themselves in terms of their physical characteristics, such as height and weight; mental characteristics, such as temperament and hobbies; as well as spiritual characteristics, such as hard work and perseverance. Accordingly, their choice to remain silent in classroom stems from their choice to match their desired level of social participation based on certain self-perceptions. Students may remain silent in classroom so as to build self-esteem and gain more happiness. In short, students who do well academically and those who do not do well academically tend to use silence for different purposes. The first group intends to reinforce their status as exceptional students, whereas the second group often use silence to reinforce their status as being less competent <sup>[15]</sup>.

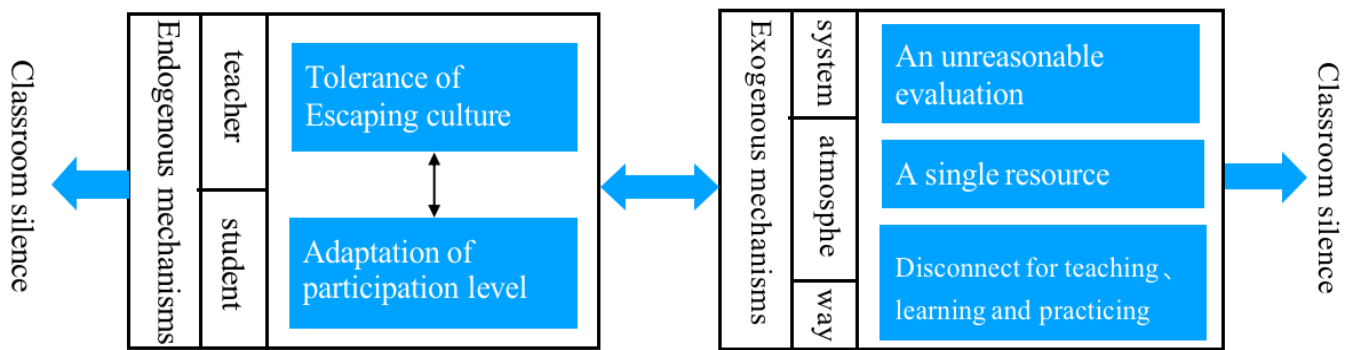
### **3.2. Exogenous mechanism**

The exogenous mechanism of classroom silence mainly involves three aspects: unreasonable design of teaching evaluation, single classroom environment, and disconnected instructional process.

Firstly, the unreasonable design of teaching evaluation in classroom leads to teachers' silence. According to an interview on the existing teaching evaluation, the amount of class time, class performance, student evaluation, and debriefing evaluation are concerns, among which the formalized student evaluation and subjective debriefing evaluation have led to unreasonable classroom teaching evaluation and affected the attentiveness of teachers to the effectiveness of teaching and the dynamicity of classroom environment. It is easy to overlook the complexity and dynamic nature of classroom teaching, obscure the subjectivity and development of both teachers and students, as well as lose the value and meaning of classroom teaching <sup>[16]</sup>.

Secondly, the single classroom environment also directly contributes to classroom silence. The single classroom environment is mainly reflected in two aspects, namely, the teaching method and the integration of teaching resources. The teaching method is still based on the traditional indoctrination approach, in which teachers are regarded as the transferring and transmitting tools of teaching materials, while students are regarded as "receivers." This approach disregards the "vitality" of the classroom. Teaching resources include the teaching materials, the teaching environment, and the teaching support system. The existing teaching materials are piles of texts displayed on PowerPoint slides, which are read aloud to students, neglecting students' subjectivity and enthusiasm. The classroom is basically a "cold" environment, consisting of tables, chairs, blackboards, and multimedia equipment. The only piece of information technology used in the classroom is a standard multimedia computer, a microphone, and a projector. There is a dearth of open and active online interaction with students <sup>[17]</sup>.

Thirdly, there is a serious disconnection among teaching, learning, and practice in the classroom. This disconnection between teachers' teaching, students' learning, and students' practical ability to use knowledge to solve problems is evident. Teachers tend to focus solely on imparting knowledge; they rarely pay attention to the extent of students' learning and application of knowledge. Hence, students are caught up in the acquisition of written knowledge, and they lack the ability to think, internalize knowledge, and realize the invocation of knowledge in real life.



**Figure 1.** Generative mechanisms of classroom silence

## 4. Establishing a new model of classroom interaction

### 4.1. Optimizing teaching evaluation tools

Teaching evaluation tools are important means for classrooms to realize their teaching values. The establishment of a scientific and effective comprehensive teaching evaluation system would help to break the classroom silence phenomenon and promote the high-quality development of both teachers and students, thus improving the overall quality of classroom teaching.

Schools should use motivational evaluation tools to improve the traditional teaching evaluation that is fully based on the amount of class time and class grades. In addition to classroom inspection and listening in during lessons, schools should also actively carry out extended evaluation to encourage teaching input from teachers, that is, to establish a scientific and objective four-dimensional classroom evaluation index system comprising results, process, value-added, and comprehensive, so as to conduct more systematic, accurate, and effective teaching evaluation as well as to motivate teachers to create a charming image for students. Second, schools should use basic assessment tools appropriately to promote the participation of both teachers and students in classrooms, including the preparation of systematic teacher-student classroom development plans and institutional tools as well as the design of assessment tools to stimulate teacher-student interaction and enhance the interactive atmosphere in the classroom. In short, breaking away from the rationality of teaching evaluation, focusing on the ecological guidance of teaching evaluation, and thus promoting both teachers' and students' participation in classrooms will breakings the silence in classrooms.

### 4.2. Creating a multidimensional physical technology environment

School classrooms need to be built on a diverse and three-dimensional physical technology environment that allows for a greater variety of teaching methods and a greater integration of resources.

First, course teaching can promote the diversification and informatization of teaching methods by incorporating physical technology. Teachers can use modern physical technology to change the traditional indoctrination approach, making the classroom more vivid and interesting. At the same time, they can build a digital portrait for each student by using information technology data to achieve personalized teaching. For example, the artificial intelligence (AI) assistant can act as a teaching assistant in classroom, creating a library of questions and answers to the common problems faced by students, and providing timely voice answers to students' questions when the same problems are repeatedly consulted. The AI assistant not only enables the classroom to integrate high-end technology elements of AI, but also innovates the manner of interaction between teaching and learning and allows teachers to save more time. Teachers can then focus more on communicating and interacting with the students so as to alleviate students' silence. Second, the use of physical technology to integrate classroom teaching resources makes classroom teaching resources more diverse and assists teachers in conducting their classes more creatively. For example, in addition to basic paper-based textbooks, it is necessary to introduce a variety of teaching materials that suit the learning

habits of different students, provide diverse online classes and websites with a large library of teaching resources, and offer supplementary WeChat platforms and apps to display high-quality videos, test questions, exam assessments and analyses, *etc.* At the same time, schools should also build a comprehensive intelligent teaching platform to provide a new medium for interactive input from both teachers and students. Teachers can use intelligent interactive functions to provide accurate and efficient tutoring to students anytime and anywhere, while students can publicly share and display their learning results on the smart platform in a timely manner.

#### **4.3. Fostering an interactive culture of returning to the classroom**

Since teachers gain a degree of autonomous inclusion and other directed inclusions by being silent in classroom, they selectively escape the classroom; students, on the other hand, selectively disengage from the classroom in order to maintain a certain level of classroom participation to meet their respective needs for optimal well-being.

Therefore, in order to break the silence in classroom, we must create an interactive culture in classroom, which would promote the “return” of teachers and students to the classroom. Classroom teaching is essentially an activity in which human beings interact materially and spiritually to transmit culture, adapt to cultural change, and promote their own growth and social development. Classroom culture can be considered a combination of norms, values, beliefs, and ideological symbols in classroom teaching <sup>[18]</sup>. It is mainly expressed by the teacher’s interdisciplinary thinking and the effective integration of teaching and learning to stimulate students’ interest and mobilize their selective participation <sup>[19]</sup>, considering that students have the “need” to selectively ask questions according to their own needs. Students selectively ask or respond to the teacher’s questions according to their own needs and the need to immerse themselves in the classroom through “dialogues” with the teacher. This ultimately improves their learning involvement and in accomplishing something <sup>[20]</sup>. With an interactive culture, a good question-and-answer cycle can be established between teachers and students. In that way, teachers can no longer “escape” from the classroom, while students can no longer leave the classroom.

#### **5. Conclusion**

There are generally two generative mechanisms of classroom silence: endogenous and exogenous mechanisms. The endogenous mechanism is reflected in the selective escape of teachers and students from the classroom; on the other hand, the exogenous mechanism is reflected in the unreasonable design of teaching evaluation, the single classroom environment, and the disconnection among teaching, learning, and practice. In order to construct a new model of classroom interaction, it is necessary to optimize the teaching evaluation tools, create a multidimensional physical technology environment, and establish an interactive culture that promotes the “return” of both teachers and students to the classroom. In addition, the phenomenon of classroom silence has not been explored extensively from the perspective of “escape culture.” Hence, future research may consider adopting this perspective and using empirical research methods to verify the specific generative mechanisms of classroom silence.

#### **Disclosure statement**

The authors declare no conflict of interest.

#### **Author contributions**

M.X. conceived the idea of the study, while H.L. and W.Y. collected the study materials.

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