Asia Pacific Science Press

*Journal of Educational Theory and Practice*
*ISSN(O):3005-9313*
*ISSN(P):3005-9305*
*Vol. 3 No.4 (2026)*

# A Study on Classroom Engagement in Gamified English Instruction in Elementary Schools Across Different Class Sizes: A Case of a Summer Volunteer Teaching Classroom in Longyou County, Zhejiang Province

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**Abstract:** This study examines the impact of class size on the participation of primary school English gamification teaching, focusing on the changes in the participation of habitually silent students. The data were collected through classroom observation, semi-structured interviews and case tracking, and the five classes of different classes were observed in a triangular way. The results showed that the class size was negatively correlated with classroom participation. The smaller the class, the higher the overall participation. The silent students also had positive changes in active response, non-verbal participation and attention maintenance; these results can provide a preliminary reference for front-line teachers to adjust gamification teaching strategies under different lesson types.

**Keywords:** Class Size; Gamified Classroom; Classroom Engagement; Elementary School English

**Published:** Oct 29, 2026

**DOI:** https://doi.org/10.62177/jetp.v3i4.1768

## 1. Introduction

### 1.1 Research Background

Young children's English enlightenment involves distinct cognitive and affective characteristics. They think in concrete ways, have limited attention spans, and respond strongly to intuitive, hands-on activities, while also seeking recognition from peers and teachers, which makes classroom interaction an important source of intrinsic motivation [6]. Gamifiled instruction combines real life scenes to set game situations to drive learning [3] and has been shown to improve classroom engagement by encouraging students to move from passive reception to active participation [9]. However, the operation of gamification teaching depends largely on whether teachers and students can continuously exchange information. Class size will affect the distribution of teachers' attention, the intensity of interaction and the organization of the classroom, and then change the structure of this interaction opportunity. Most of the previous studies have examined the effect of class size and the effect of gamification teaching separately, and rarely studied how class size will affect the gamification teaching to really play a role.

The teaching project found that under different class sizes, the participation of the same group of students in gamification activities varies. The larger the class, the lower the participation, and the less-spoken students are more prominent. This study combines classroom observation, semi-structured interviews and case tracking of two silent students to examine

the participation patterns of fixed primary school students under different class sizes. From the preliminary results, the participation in the larger class has a tendency to decrease, but these models cannot be explained too absolutely; the two silent students showed more active response, participation and continuous attention in the small class. These situations provide a preliminary reference for front-line teachers to adjust the gamification strategy under different class size conditions. At the same time, it is necessary to continue to explore how the structural conditions and instructional design interact in the gamification classroom.

### 1.2 Research Questions

1. Are there differences in classroom engagement in gamified instruction across different class sizes?
2. What are the general characteristics of silent students in gamified classrooms, and what are the approximate causes of their silence?
3. Is there a relationship between class size and the classroom engagement status of silent students?

### 1.3 Research Significance

Previous studies rarely put the gamification classroom and the class size together; when the class size is different, how will the students ‘ investment in gamification teaching change. The materials in this area are still relatively lacking. This study considers the class size as a key variable in the gamification teaching, which can add a new analysis angle to understand under what conditions it can operate effectively. When examining the classroom effect, most of the existing studies regard the academic performance of the class as a result, and pay little attention to the individual students who are habitually silent in the classroom. This study supplements the class-level observation with individual-level evidence by tracking the selected students who tend not to actively participate. From the perspective of research samples, the existing literature is mostly concentrated in the upper grades of primary schools, junior or senior high schools. The coverage of young learners in township areas is relatively limited. This study also attempts to add some incremental value to the accumulation of localized evidence in this field.

In actual teaching, the class size is different, and the way teachers organize gamification teaching and adjust interactive strategies need to follow. This research has reference value for front-line English teachers, and can also help them identify the difficulties of silent students ‘ participation and find solutions. The classroom observation records and case tracking methods used in this study can be used as practical tools for front-line teachers to identify differences in student engagement and carry out targeted interventions in daily teaching.

## 2. Literature Review

### 2.1 Definition of Core Concepts

Gamification is that real application scenarios are built, students ‘ multi-sensory memory is activated, and reasonable difficulty participation situations are designed [3]; in this study, it specifically refers to the teaching method of promoting students ’ participation in the English enlightenment classroom for children, which is organized in the form of games, competitions, role selection, interactive tasks and other activities.

Classroom participation is the overall performance of students ‘ behavior, emotion and cognitive participation in classroom activities [6]. In this study, it is operationalized as explicit behavior participation in gamification teaching, mainly observing and recording active reading and retelling, raising hands to speak, answering questions and other behaviors.

Class size refers to the total number of students formally enrolled in the class; although it is only a numerical indicator of the number of students, but more importantly, as a classroom situation variable, it affects the way of classroom organization, the frequency of teacher-student interaction and the number of students ‘ participation opportunities.

### 2.2 Current State of Research on Gamified Instruction and Classroom Engagement

Findings indicate that gamified instruction effectively improves students’ academic achievement, significantly enhances their learning engagement and attentional focus, and contributes to alleviating psychological distress [2]. The core of gamification teaching is to redesign the teaching process by using the motivation structure and feedback logic of the game, rather than introducing entertainment activities in the classroom. The self-determination theory provides a theoretical basis for the effectiveness of gamification teaching: if the game mechanism can meet the three core psychological needs of autonomy,

competence and relevance, the external learning tasks will be more easily transformed into internal driving behaviors [16]. With the help of situation creation, role identity and instant feedback, gamification teaching is more in line with the learning preferences of this age group, and a number of empirical investigations also support this judgment; Al Abtahee et al.conducted a quasi-experimental study in undergraduate EFL classrooms, and found that the experimental group receiving gamification vocabulary teaching was significantly better than the control group in vocabulary acquisition ( effect size d = 1.05 ) and learners ' well-being ( d = 1.03 ) [4].

In terms of the specific dimensions of classroom participation, Wang Yutao and Li Chunqi divide it into three categories: behavioral participation, cognitive participation and emotional participation; among them, gamification teaching has a particularly obvious effect on the improvement of behavioral participation and emotional participation [16]—its core pathway lies in prompting students to shift from passive bystanders to active actors through mechanism design [9]. The effectiveness of gamification teaching is not unconditional, and some studies have pointed out some limiting factors. Liu Yanbing believes that the implementation process may face practical obstacles such as time-consuming classroom management and difficulty in discipline regulation [5]; Sui Haiying and Sun Yinghui found that children's response to gamification teaching is not consistent ; people with introverted personality or weak language foundation are more likely to ' retreat behind the scenes ' in activities [14]; Xiao Jianfu pointed out more directly that although the class size has been reduced, it has not been naturally transformed into teaching advantages [8]. Liu Ying pointed out that small class teaching is essentially a systematic change, that is, from " mass production " to " teaching students in accordance with their aptitude. " [7] Guo Zichao further pointed out from the perspective of interaction density that class size is not a simple quantitative index, but a key organizational variable. The quality of classroom interaction, group collaboration, and the depth of student engagement are all directly affected by it [1]. This judgment regards class size as a key variable and also provides a direct theoretical fulcrum for this study.

Based on the above literature, the existing research focuses on whether the gamification teaching is effective, whether the effect can remain stable under different classroom conditions, and whether the mechanism of action changes. There is still a lack of sufficient empirical response; how does the difference in class size affect classroom participation in gamification teaching, especially individual students with habitual silence, remains to be answered through real classroom observation.

## 2.3 Research on the Impact of Class Size on Instructional Effectiveness

A number of studies have confirmed that class size will affect the teaching effect, but it is not just a simple model of "the smaller the class, the better the result, " but may impacts a series of variables, such as teachers ' attention, classroom interaction opportunities, teaching organization granularity and students ' psychological state. Li Mian et al. examined the moderating effect of class size on the relationship between teachers' instructional behaviors and student academic achievement [13]. The study found that when the class size is expanded, the positive effect of teachers ' teaching behavior that encourages students to think and explore independently on students ' academic performance will gradually weaken; students in large classes are relatively more easily distracted and out of class. Class size first affects teachers ' attention distribution and interaction frequency, and then indirectly affects students ' participation; from the perspective of English learning efficiency, Su Qiudan pointed out that teachers can invest more time and energy to help each child succeed in small classes, and also help to maintain classroom safety, discipline and order [15]. Wang Yongjie further systematically expounds the advantages of small-class teaching, and points out that small-class teaching significantly increases students ' pragmatic practice opportunities, so that language skills can be honed in frequent interaction. Teachers can also identify individual differences more accurately and implement more targeted teaching strategies; as a result, the participation of classroom interaction has been greatly improved, and introverted students have gained more space for expression [10]. Guo Zichao emphasized at the theoretical level that class size is not only a quantitative indicator, but also a key organizational variable. The density of classroom interaction, the quality of group collaboration and the depth of student participation are all directly affected by it [1]. The above research shows that the reduction of class size can provide more favorable structural conditions for teachers ' attention and classroom interaction; whether these conditions can be transformed into teaching effectiveness still depends on the combined effect of many factors.

The ' possibility ' released by the reduction of class size is not automatically equivalent to the ' reality '; Xiao Jianfu pointed

out that the advantage of small class teaching is that every student has the opportunity to participate in the classroom. Teachers can ensure that every student can speak and show what they have learned by means of turn-taking, group presentation, desk-to-desk mutual speaking and mutual checking [8]. This judgment means that the actual effect of small class still depends on teachers ' teaching organization ability, classroom management strategy, and whether they can properly deal with students ' individual differences. Based on the reality of rural English teaching, Dong Shanshan and Liu Yaping pointed out that rural students have both objective difficulties and psychological obstacles in English learning. Teaching should adhere to student-centered, activate its learning subjectivity, and formulate personalized goals that meet the needs of students ' development [11][12].

This perspective shows that the realization of the class size effect also needs to take into account the specific psychological state and social background of the student group; in different situations, the role of class size will also be different.

### 2.4 Limitations of Existing Research and Innovations of This Study

From the previous literature, there are two key findings that have laid the foundation for this study: one is that gamification teaching has a positive effect on improving the classroom participation of young students, and the other is that the class size has a significant impact on the classroom teaching effect. Under the condition of small class size, there is a relatively large room for improvement in teaching quality.

However, the existing research still has limitations: gamification teaching and class size belong to two independent branches, and there are few cross studies. Most of the studies adopt a single perspective or explore the design and implementation strategies of gamification teaching. (Zhang Yunxia, 2026; Gai Lina, 2026; Liu Yanbing, 2026) or examine the effects of class size on instructional quality and student development (Li Mian et al., 2022; Su Qiudan, 2009; Wang Yongjie, 2025). It is still relatively rare to integrate the two types of research and examine how the difference in class size affects the actual effect of gamification teaching. In terms of methods, previous studies have relied more on questionnaires or theoretical analysis, and less on empirical observation in real classrooms. Liu Yanbing noted that his strategic analysis focused on theoretical discussion and the construction of idealized classroom scenarios, without in-depth empirical testing of the differentiated feedback from students across different grade levels and with different academic foundations [5]. Through sustained documentation in early English enlightenment classrooms in township areas, this study can supplement the empirical data from frontline classrooms for this field. Most research on rural English instruction focuses on the junior high school stage or upper elementary grades (Dong Shanshan, 2022; Liu Yaping, 2023), with insufficient attention paid to the early enlightenment stage in townships (from kindergarten to second grade). Xiao Jianfu pointed out that reduced class size provides conditions for teachers to understand students and organize activities, but the advantages of small class sizes can only be truly transformed into educational advantages when supported by corresponding instructional strategies [8]. At present, there is still a lack of sufficient practical research to clarify how the class size affects. Based on this deficiency, this study selects the early English enlightenment classroom in township areas, takes the class size as the analysis angle, hoping to provide some reference for the class size arrangement and teaching practice of early English enlightenment education in township areas.

## 3. Research Methods

### 3.1 Research Participants

From July 23 to August 7, 2026, the researcher observed English enlightenment classes at the teaching site in Xikou Town, Longyou County, Zhejiang Province. The classes enrolled students ranging from kindergarten to second grade, with attendance varying between 7 and 30 students per session. Across five observed class sessions, the study compared differences in student engagement and examined how silent students' engagement shifted under different class size conditions. The initial observation stage includes a 7-person mixed-age class, and the student age spans from kindergarten to junior high school. Due to the obvious differences in age structure, the class data are not included in the core analysis samples. However, it will be used as a supplementary evidence.

### 3.2 Research Methods

#### 3.2.1 Classroom observation method

The researchers carried out real-time classroom observation in a variety of class sizes. The warm-up activities in gamification

teaching refer to the game interaction links with high participation of students, covering competition, role selection and action games; the low-participation links are less interactive, mostly based on mechanical exercises. In each lesson, the observer recorded the number of students who raised their hands, willing to participate in repetitive activities, the behavior of silent students and specific students, the type of games corresponding to high-participation and low-participation segments, and the overall atmosphere of the classroom; the same high-participation and low-participation tasks were used in each class-scale classroom.

### 3.2.2 Semi-structured interviews

The researcher conducted semi-structured interviews with children from kindergarten to grade 2 who participated in the game-based teaching of basic English.

(1) Interviews on overall classroom experience

The study selected 10 students as participants, and their classroom participation covers different levels. The interviews were arranged after class, and the students were in a relatively relaxed state. The core question is ‘ Do you like this English class? Why or why not? The purpose of the interview is to judge whether gamification teaching can attract young learners in primary English courses and to examine the internal influence of gamification teaching itself.

(2) Interviews on reasons for students’ silent behavior

The interviewees were six students with obviously low classroom participation. The interview is also arranged after class, and the students are in a relatively relaxed state; the core question is ‘ Why do you not want to raise your hand to participate in read-alouds in class? ’. These interviews aim to clarify the main motivation factors behind students ‘ silence behavior and identify the obstacles to the effective implementation of gamification teaching in the initial stage of English learning for young learners. Therefore, the interview data provide qualitative evidence for examining how class size affects silent students.

### 3.2.3 Case tracking method

This study focuses on the influence of class size on the participation of game-based English enlightenment teaching, focusing on whether silent students can be effectively activated. Based on this, two representative silent students were selected for continuous and in-depth observation, and their classroom participation changes over time were recorded. Both tow students show no raising their hands, no answering questions, no reading and avoiding eye contact in two consecutive classes and no English background. The observational dimensions according to the indicators listed in the following table.

| Observation dimension | Behavioral engagement | Behavioral engagement | Behavioral engagement | Cognitive engagement | Affective engagement |
|---|---|---|---|---|---|
| Observation indicator | Whether the student initiates responses | Quality of responses | Presence of positive nonverbal participation behaviors (e.g., body language, eye contact, etc.) | Duration of sustained attention | Emotional state |

The case tracking runs through the entire observation period from July 23 to August 7. After each class, the classroom performance and key changes of the two students are recorded to supplement the individual changes that are difficult to capture by quantitative data.

## 3.3 Data Collection Process

This study conducted a total of five data collections, all relying on the classroom observation of the Xikou teaching site; the teaching contents and methods of each lesson are consistent, and the game-based English enlightenment teaching is adopted. All records are also completed on the spot.

The data collected covers several categories. The number of participants in the high-participation activities. It was the number of students who volunteered to participate in read-alouds when the researcher asks loudly, “Does anyone like reading with me?” during warm-up activities. The number of participants in low-participation segments referred to the count of students who joined read-alouds during weakly interactive activities. The behavior of silent students records the behavior of students who are not involved in both high participation and low participation in the classroom. During the whole observation period, each game-based English enlightenment lesson tracked the changes in classroom performance and participation of the two

selected target students, and paid attention to the changes in special situations. The basic classroom information includes the attendance rate of each class, the most popular game type, the generally low participation of students and the overall classroom atmosphere. Among them, the number of participants with high and low participation is recorded in real time in the classroom, and the remaining data is also completely recorded within a few minutes after every classes.

### 3.4 Data Analytics Methods

After the above data and information collection is completed, the number of participants in high-participation and low-participation links, the behavior of silent students changes in special situations, and basic classroom information are covered. The researchers used a mixed method of quantitative and qualitative analysis.

Quantitative analysis was used to calculate the participation rate for high-engagement segments and low-engagement segments using the following formula: participation rate = number of participants ÷ total number of students × 100%.

The interview results are classified by qualitative analysis: the answers to the general view of the classroom are divided into two categories: game-related motivation and learning motivation; the interview records on the causes of students ‘ silence behavior are divided into two categories: language anxiety and lack of interest. Subsequently, the observed silent student behavior patterns were compared with the causes of silence reported in the interview, and cross-validation (triangulation) was established between the observed data and the interview data to improve the accuracy of the research results.

## 4. Research Results and Discussion

### 4.1 Comparison of Participation Rates in Gamification Instruction across Different Class Sizes

*Table 4-1*

| Date | Location | Total number of students | Warm-up activity participation rate | Cool-down activity participation rate |
|---|---|---|---|---|
| July 24 | Xikou | 30 | 33% | 13% |
| July 31 | Xikou | 12 | 75% | 33% |
| August 5 | Xikou | 24 | 37.5% | 20.8% |
| August 7 | Xikou | 14 | 71.4% | 28.6% |
| July 29 | Xikou | 26 | 46% | 30% |

As shown in the table, the class size is reduced, and the overall classroom participation rate is on the rise ; in the warm-up activities, the participation rate of the 30-person class was about 33 %, the 26-person class was about 46 %, the 24-person class was about 37.5 %, the 14-person class rose to 71.4 %. And the 12-person class was about 75%. The participation rate in the cold period was about 13 % in the 30-person class, 20.8 % in the 24-person class, 28.6 % in the 14-person class, 33 % in the 12-person class. The above figures show that the class size is negatively correlated with the participation rate, and the change is particularly obvious when 24 people drop to 14 people, which is worthy of further study. The warm-up participation rate of the 24-person class was lower than that of the 26-person class. According to the researcher ‘s recall, it may be related to the slightly more new vocabulary on the day. It can be seen that immediate classroom conditions also affect participation. Class size does not work through a single mechanism, and specific teaching situations need to be taken into account. In addition, this study also observed a 7-person mixed-age class and the data in Table 4-2 is as an auxiliary reference for the small class situation.

*Table 4-2*

| Date | Location | Total number of students | Warm-up activity participation rate | Cool-down activity participation rate |
|---|---|---|---|---|
| July 30 | Muchen | 7 | 100% | 50% |

### 4.2 Behavioral Characteristics and Transformation Patterns of Silent Students

In this observational study, silent students were operationalally defined as students who did not participate in classroom warm-ups or low-participation sessions. According to the observation records, their behavior performance is roughly divided into two categories: one is classroom attention, which responds to some classroom events, but does not participate in

activities; the second is to chat or engage in behavior outside of the task.

Based on the second section of the semi-structured interviews, the following causes were identified: (1) language anxiety, including difficulty memorizing vocabulary words and fear of answering incorrectly; (2) being shy; (3) lack of interest. Among the six students interviewed, four mentioned the reasons related to language anxiety. For some students, language anxiety may be a key factor affecting their classroom participation.

In order to investigate whether the reduction of class size will affect the classroom participation of silent students in gamification English introductory teaching, this study followed up two specific silent students.

The first student did no participation in activities at the beginning and she sat in the back of the classroom. Afterwards, the researcher intends to pay more attention to her and increase interaction; since then, its classroom participation has changed significantly. After the class size is reduced, teachers have more available space, time and attention to interact with them, and the students are more active.

Although the second student sat in a relatively front position, the participation in the classroom was low and he tried to avoid eye contact with researcher; after the number of students in the class decreased, the researcher gave them more attention and invitation to participate. The students ‘ voluntary participation gradually increased, the classroom attention was obviously concentrated, and they began to raise their hands to answer the questions.

The change of silent students ‘ classroom participation shows there is a correlation between the smaller class size and the higher participation rate; as the number of students decreases, researchers can focus more on silent students, guide them to participate in classroom activities, and make it easier for them to shift from silence to active participation. At the same time, the existence of ’ pseudo-silent students ‘ makes this situation more complicated; taking the first student as an example, she has not been active before, and only needs the teacher to give encouragement, she can open the ’ valve ‘ in a short time and become an active participant. It can be seen that the decrease in the number of classes provides more favorable conditions for teachers to absorb silent students and pseudo-silent students and enhance the overall classroom participation.

### 4.3 The Effect of Class Size on Classroom Engagement Under Multiple Sources of Evidence

After the combination of quantitative and qualitative analysis, this study shows that there is a negative correlation between class size and classroom participation in game-based English enlightenment teaching from three dimensions. This study is based on the fact that the effectiveness of gamification teaching has been confirmed. The answers to the first part of the semi-structured interview are 7 of the 10 students believed that ‘ fun games ’ were the reason why they liked the English classroom and 3 said ‘ want to learn new expressions ’. It can be seen that gamification teaching has a wide appeal to young learners, which provides a premise for the follow-up study. Further analysis of participation rate data drawn from classroom observations points to a negative association between class size and classroom participation rate. Participation in the warm-up activity was 33% for the class of 30 students, 46% for the class of 26 students, 37.5% for the class of 24 students, then rose to 71.4% for the class of 14 students, reached 75% for the class of 12 students. The cool-down activity followed the same overall pattern. The class of 24 students appeared to constitute an outlier; upon review, the researchers noted that although gamification-based instruction was also implemented in that session, several new vocabularies likely accounted for this deviation. Even so, the overall negative association remained evident. From a complementary dimension, attribution analysis and case tracking of silent students offered qualitative support for this finding. Interviews with 6 silent students concerning the causes of their silence indicated that language anxiety-related behavior accounted for a very large proportion of the reported reasons. At the same time, both participants in the case tracking showed clear positive changes in status and became more actively engaged in class after class sizes were reduced and teacher attention increased.

The above three sets of evidence come from the verification of the effectiveness of gamification teaching, the quantitative trend of class size change, and the attribution analysis of silent students and their transformation in the case ; the three together show that in townships and rural areas, reducing class size has a positive effect on young students ‘ participation in game-based English enlightenment teaching.

## 5. Conclusions and Recommendations

### 5.1 Research Conclusions

This study uses classroom observation, semi-structured interviews and case tracking to investigate the impact of class size differences on students ' participation in early English enlightenment classes in township areas under the context of gamification teaching. The conclusions are as follows.

### 5.1.1 Impact of class size on engagement in gamified instruction and corresponding recommendations

From the conclusion of the study, the reduction of class size and the increase of classroom participation rate show synchronous changes: the participation rate of warm-up activities in 30-person classes is about 33 %, while that in 14-person classes increases to 71.4 %. Appropriate control of class size when teaching conditions permit will help teachers to increase teacher-student interaction and individual attention, and also facilitate the implementation of gamification teaching activities.

### 5.1.2 Behavioral characteristics of silent students and teaching recommendations

The study found that the core feature of silent students is not to participate in classroom activities, only to respond to the classroom, such as watching or laughing; interviews show that language anxiety-related factors, such as fear of answering mistakes and memory difficulties, are the most frequently mentioned reasons for silent students. In a large class environment, silent students are easy to be ' invisible ' in a larger group; in the context of small class, teachers can pay close attention to them, use judgment to provide targeted guidance, and gradually promote their transformation to enhance participation.

After the class size is reduced, teachers can use the improved conditions to identify the specific reasons for the silent students, and provide targeted guidance accordingly; it is not advisable to rush to success. We can first adopt a low-threshold participation method to support students to participate in a small-step, and form a positive feedback cycle to gradually improve the level of participation.

### 5.1.3 Facilitating effects of reduced class size on the transformation of silent students and instructional recommendations

After the reduction of class size, the two observed students have changed significantly: one changed from low participation to high participation, and the other changed from watching to raising hands and making contributions. This change shows that reducing the class size creates favorable conditions for the transformation of silent students, so teachers can pay more attention to their performance and improve their level of classroom participation.

Teachers can use small class conditions to maintain continuous attention to silent students, supplemented by positive feedback and encouragement, to promote their gradual transformation, and then develop a higher level of participation in the classroom habits.

## 5.2 Research Limitations and Future Directions

Although this study has the above findings, it still needs to explain its limitations: due to the length of the summer teaching program, the sample size is limited, and it is difficult to make more class size gradients; therefore, the correlation between the reduction of class size and the improvement of students ' participation should not be directly explained as a causal relationship. Whether the trend reflects a stable model still needs to be tested by a larger sample; at the same time the specific silent students are not tracked for a long time. Whether their participation income is short-term fluctuation or continuous change is still difficult to determine. At the classroom level there are still some factors that are not controlled. In the process of teaching, the researcher adjusts according to real-time feedback, such as reducing the difficulty of the problem and allowing students to answer in Chinese, etc. Such practices may enhance students ' learning engagement. In addition, the mixed-age composition also influences results; since class size is used as a structural variable in this study, these teaching strategies are not included in the independent analysis variables. Therefore, the changes in classroom participation may also be affected by the above factors. In view of the above limitations, the follow-up study can expand the sample scope and include a wider class size gradient to enhance the generalization of the conclusions ; the longitudinal observation period is extended to examine the continuous impact of class size differences on student participation in gamification teaching, and the time trajectory of silent student behavior improvement ; more rigorous control group design (CGD) can also be used to control potential confounding factors such as teaching strategies and students ' basic English proficiency, so as to more accurately identify the interaction between class size and other classroom variables and provide stronger evidence for causal inference.

# Appendix 1: Semi-Structured Interview Outline

The purpose of this interview is to understand students' classroom perceptions and participation behaviors in early English foundational learning classrooms. Interviews were conducted in an informal, one-on-one format after class.

## Interview 1: Interview on overall classroom perceptions

1. Did you enjoy this English class? Why or why not?

(Follow-up prompts will be used as appropriate based on student responses)

Which part of the class did you like the most?

Did you find the games more fun, or learning new words more fun?

## Interview 2: Interview on reasons for silent behavior

1. Why were you reluctant to raise your hand and read along during class?

(Follow-up prompts will be used as appropriate based on student responses)

Was it because you did not know how to read the words?

Or was it because you found the activities uninteresting?

Which word was the hardest for you to read?

Interview location: Summer volunteer teaching site, Xikou Town, Longyou County, Zhejiang Province

# Funding

No

# Conflict of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

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