

# Human-centered English classroom practice research: exploring student agency development paths based on personalized learning and emotional support

*Yan Liang<sup>1</sup>, Jinghua Li<sup>2</sup>, Heying Bai<sup>3\*</sup>*

<sup>1</sup>The University of Edinburgh, Edinburgh, United Kingdom

<sup>2</sup>Universiti Putra Malaysia, Selangor, Malaysia

<sup>3</sup>Sun Yat-sen University, Guangzhou, China

\*Corresponding Author. Email: rara481846778@gmail.com

---

**Abstract.** This study verified the effectiveness of the personalized support plan through comparative teaching experiments. The experimental group (60 people) simultaneously implemented the stratified teaching plan and the emotional counseling mechanism in 12 weeks, while the control group (60 people) maintained the conventional teaching mode. Standardized tests showed that the English score of the experimental group increased from 62.4 points to 78.9 points, with an increase of 21 percentage points higher than that of the control group. In the emotional engagement assessment, the experimental group achieved a significant improvement of 0.9 points on the 5-point scale, and the learning autonomy score increased by 17 points (out of 100). Classroom observations revealed that students in the experimental group showed greater initiative in selecting learning tasks and group collaboration. These data indicate that combining personalized learning paths with systematic emotional support can effectively improve students' cognitive levels and emotional engagement, thus providing a practical, replicable model for English language teaching reform.

**Keywords:** personalized learning, emotional support, student agency, English education, human-centered pedagogy

---

## 1. Introduction

Currently, English teaching is shifting from the traditional model to a new model focused on individual needs and emotional development. Studies have confirmed that the combination of stratified instruction and emotional support can significantly improve the learning autonomy of middle school students. However, most existing practices focus on the university stage. Due to the limitations of curriculum standards and teaching pressures, relevant systematic research on the middle school stage is still lacking.

This study, through a 12-week teaching experiment, focused on three questions: the improvement effect of personalized learning paths on English grades, how the emotional counseling mechanism affects class participation, and the synergistic effect of the two on learning autonomy. The experimental design takes cognitive stratification and emotional support as independent variables and verifies their comprehensive benefits through a comparative analysis [1].

The structure of the thesis consists of five parts: Chapter two reviews the theoretical bases of personalized teaching and emotional support; Chapter three gives more details on the implementation plans of the experimental class and the control class; Chapter four analyzes the specific process of stratified curriculum design and emotional counseling; Chapter five presents the results of the indicators of academic achievement, classroom interaction and autonomy; The conclusion part summarizes the inspirations of the teaching and suggests ways of improvement.

## 2. Literature review

### 2.1. Personalized learning in language education

Current research indicates that adaptive teaching strategies—that is, adapting teaching content, progress methods, and guidance based on learners' cognitive characteristics—can significantly improve learning engagement, promote the cultivation of specialized skills, and strengthen the learning reflection mechanism. Research at multiple levels, from basic education to higher education, shows that when intelligent learning tools (such as personalized learning platforms or intelligent grammar support systems) are combined with differentiated task designs, the average increase in standardized language test scores reaches 12 to 18 percent. Differentiated practices in traditional English classrooms typically include vocabulary level diagnosis, interest graph analysis, and a multi-channel task design framework [2]. These methods provide learners with personalized options that match their cognitive characteristics, cultural background, and language abilities, such as the independent choice of reading topics, writing instructions, or oral training scenarios, thus enhancing the intrinsic relevance of learning activities. The dynamic feedback system—including teacher-guided assessment and learner peer-review mechanisms—helps establish actionable learning paths and visual growth trajectories. However, practical applications still face multiple challenges: teachers must continually adjust their teaching plans, resulting in increased work intensity; it is difficult to unify the adaptation standards of different knowledge modules; and it is difficult to maintain the implementation effect in teaching scenarios with complex student source structures. In addition, the operational efficiency of the teaching support system is often limited by the level of digital resource allocation and the technical application capacity of teachers. These two elements present significant differences between educational institutions [3].

### 2.2. Emotional support strategies in classroom

The emotional dimension of language learning encompasses regulating motivation, alleviating anxiety, cultivating psychological resilience, and building interpersonal trust. These elements play a fundamental role in maintaining long-term learning engagement and initiative in language practice. Research has confirmed that systematic emotional support programs—such as weekly emotional communication sessions, specially designed empathy training modules, and teacher-student dialogue mechanisms focused on academic development and individual growth—improve classroom cohesion by up to 25%, reduce the average language anxiety index by 0.7 points (assessed using a five-point scale), and promote the formation of interclass collaboration networks. These support mechanisms are particularly important in English classrooms where expressions are not in the native language [4]. Effective emotional support can not only enhance learning resilience but also contribute to building a learning ecosystem that allows for trial and error and encourages innovation. Although the direct correlation between emotional support and language development remains to be quantitatively investigated, interdisciplinary research shows that a psychologically safe classroom environment is a necessary condition for deep cognitive engagement. Teachers can effectively cultivate learners' intrinsic motivation by presenting authentic emotions, guiding empathy, and establishing inclusive communication patterns. Therefore, emotional support strategies should be considered a central component of English language instruction design rather than an auxiliary teaching method[5].

### 2.3. Student agency and autonomy

Learner subjectivity in education is manifested by the ability to independently set learning goals, select learning strategies, adjust the learning process, and conduct reflections and improvements. In English teaching practice, this subjectivity is typically manifested in behaviors such as students negotiating to determine learning topics related to their own experiences, using rating scales or audio playback for oral self-assessment, and actively initiating peer assessments to improve writing skills. Subjectivity is not a fixed trait, but a dynamic development process, strongly influenced by the type of task and the teaching environment. Empirical research shows that intervention measures such as goal-planning workshops, learning log recording, and project outcome archives can increase students' self-management capacity by 14 points on a 100-point scale, while also promoting a 10-15% increase in home achievement and classroom participation. This capacity is intrinsically linked to educational goals such as lifelong learning and adaptability, and is particularly important in a rapidly changing language learning environment. However, assessing the development of subjectivity must combine multidimensional methods such as questionnaire surveys, classroom observations, discourse analysis, and learning process recordings. To accurately capture the interaction between cognitive strategies and emotional states, multidimensional data collection methods must be adopted, particularly at key nodes such as processing teacher feedback, learning difficulties, or collaborative tasks[6]. The degree of teacher empowerment has a decisive influence on the development of subjectivity. A teaching environment that provides space for choice, opportunities for expression, and mechanisms for reflection is more likely to stimulate students' initiative. Therefore, cultivating learners' subjectivity is not only a pedagogical challenge but also an important way to promote innovation in English teaching.

### 3. Experimental method

#### 3.1. Participants and context

This study selected 120 first-year students (aged 15 to 16) from two public middle schools in a given city. The gender ratio was balanced (52% female and 48% male), and initial English proficiency was similar (the pre-test mean was 62.1 and the standard deviation was 8.4). Based on the teaching methods, 60 students from each of the two natural classes were respectively assigned to the experimental group and the control group[7]. All participants adopted the unified curriculum, and the experimental group was integrated into the new teaching method. Neither group had previously been exposed to the same teaching environment.

#### 3.2. Instruments and measures

Academic performance was assessed using standardized English tests, including reading comprehension (40 questions), writing tasks (2 items), and listening tests (30 questions), with a total score of 100 points. Emotional engagement was measured using a 10-item, five-point scale, covering dimensions such as interest in learning, anxiety level, and peer support. Learning autonomy was examined using a 20-item self-report scale (ranging from 0 to 100 points) for goal management, strategy application, and reflection skills. The reliability coefficient for this scale was 0.89[8].

#### 3.3. Data collection procedures

The research period was 14 weeks. The baseline test was conducted in the first week, followed by a 12-week teaching experiment, and the post-test was implemented in the thirteenth week. Additional data included weekly teaching logs, emotional counseling attendance records, and classroom observation notes. All quantitative data were analyzed using paired samples and independent samples t-tests, and the significance level was set at  $p < 0.05$ .

### 4. Experimental process

#### 4.1. Personalized learning path implementation

Students in the experimental group implemented a personalized learning plan developed jointly by teachers and students from weeks 2 to 12. This plan was based on pre-test data and interest research, and specifically included weekly vocabulary goals (with an average of 20), interest-based reading materials (such as sports and science and technology texts), and graded writing tasks (divided into five difficulty levels)[9]. Teachers provided personalized guidance every two weeks (15 minutes per student), dynamically adjusted task difficulty based on learning progress, and each student received an average of 4.5 plan optimizations over the course of the semester.

#### 4.2. Emotional support intervention design

The weekly 30-minute emotional support class, which was advanced concurrently, was led by the class teacher and included modules such as emotional cognition training, stress regulation strategies, and peer support groups. The attendance rate reaches 93% and the average course satisfaction rate is 4.3 points (out of 5). Teachers continuously record emotional fluctuations in class and social behavior patterns, and implement targeted intervention for students exhibiting abnormal levels of anxiety or social avoidance[10].

#### 4.3. Monitoring and feedback mechanisms

Process monitoring adopts a combined model of quantitative monitoring and qualitative recording: the learning system automatically generates visual data such as vocabulary proficiency and class participation rate, and teachers regularly supplement teaching notes. When a student's weekly performance declines by more than 10%, the early warning mechanism is triggered and additional tutoring is initiated. The implementation of a peer assessment mechanism and a system for publicly announcing learning progress creates a collective supervision effect.

## 5. Experimental results

### 5.1. Academic performance outcomes

To assess the impact of educational interventions on academic performance using standardized tests. As shown in Table 1, the mean score of the experimental group increased from 62.4 points (SD 8.2) to 78.9 points (SD 7.5), an increase of 16.5 points.[11] The control group increased from 61.8 points (SD 8.6) to 70.2 points (SD 8.1), an increase of 8.4 points. The independent sample t-test showed that the difference in test scores between the two groups after 13 weeks reached 8.1 points ( $t = 7.23$ ,  $p < 0.001$ ), indicating that the improvement in the inclusive teaching method was 21% greater than that of the traditional method.

Table 1. Pre-test and post-test English scores for experimental and control groups

Group	N	Pre-test Mean (SD)	Post-test Mean (SD)	Mean Gain	% Gain
Experimental	60	62.4 (8.2)	78.9 (7.5)	16.5	26.4%
Control	60	61.8 (8.6)	70.2 (8.1)	8.4	13.6%

### 5.2. Emotional engagement indicators

Emotional engagement was measured using a 10-point scale (see Table 2 for details). The mean score for the experimental group increased from 3.2 (SD 0.7) to 4.1 (SD 0.6), an increase of 0.9 points ( $t = 8.45$ ,  $p < 0.001$ ). The control group's score increased only from 3.1 (SD 0.8) to 3.4 (SD 0.7). The 15% increase in emotional investment in the experimental group confirmed the effectiveness of systematic emotional support in creating a safe learning environment[12].

Table 2. Emotional engagement pre- and post-test scores

Group	N	Pre-test Mean (SD)	Post-test Mean (SD)	Mean Gain	% Improvement
Experimental	60	3.2 (0.7)	4.1 (0.6)	0.9	28.1%
Control	60	3.1 (0.8)	3.4 (0.7)	0.3	9.7%

### 5.3. Student agency development trends

The results of the learning subjectivity assessment are presented in Table 3. The experimental group's score increased from 65.2 (SD 10.3) to 82.4 (SD 9.1), an improvement of 17.2 points. The control group increased from 64.8 (SD 11.0) to 71.5 (SD 10.2), an increase of 6.7 points. The independent sample t-test showed that the difference between the two groups reached 10.5 points ( $t = 6.78$ ,  $p < 0.001$ ), confirming that personalized teaching and emotional support can effectively improve learners' self-regulation ability of the learning process.

Table 3. Student agency scores before and after the intervention

Group	N	Pre-test Mean (SD)	Post-test Mean (SD)	Mean Gain	% Increase
Experimental	60	65.2 (10.3)	82.4 (9.1)	17.2	26.4%
Control	60	64.8 (11.0)	71.5 (10.2)	6.7	10.3%

## 6. Conclusion

This study explores the impact of a 12-week combination of personalized learning and emotional support on seventh-grade students' English learning. The average English score in the experimental group increased by 16.5 points, significantly higher than the 8.4 points in the control group. The increase in emotional engagement reached 0.9 points compared to 0.3 points, and the improvement in learning autonomy was 17.2 points compared to 6.7 points. The results show that combining weekly personalized vocabulary, interest-based reading, and graded writing goals with a 30-minute emotional counseling session can improve academic performance, emotional engagement, and self-regulation skills more than traditional methods. This framework establishes a practical model: teachers collaborate with students to formulate personalized plans, monitor progress using data dashboards and early warning mechanisms, and provide specific support when academic performance declines. Emotional support courses focus on stress regulation, peer cooperation, and empathy training, creating a psychologically safe environment to foster learning autonomy. However, the research has limitations: samples were only taken from two urban colleges, and the

universality of the findings was limited; the lack of in-depth qualitative analyses such as classroom dialogues or student interviews; the 12-week cycle only verifies the short-term effect. Long-term studies are needed to confirm the persistence of the gain.

## Contribution

Yan Liang and Jinghua Li contributed equally to this paper.

## References

- [1] Herawati, A. (2023). Personalized learning in teaching English as a foreign language: Limiting the challenges, increasing its effectiveness. In *Proceedings of the 5th International Conference on Language, Literature, Culture, and Education* (pp. 1–8). ResearchGate. [https://www.researchgate.net/publication/370878382\\_Personalized\\_Learning\\_in\\_Teaching\\_English\\_as\\_Foreign\\_Language\\_Limiting\\_the\\_Challenges\\_Increasing\\_Its\\_EffectivenessResearchGate](https://www.researchgate.net/publication/370878382_Personalized_Learning_in_Teaching_English_as_Foreign_Language_Limiting_the_Challenges_Increasing_Its_EffectivenessResearchGate)
- [2] Vorobyeva, K. I. , Belous, S. , Savchenko, N. V. , Smirnova, L. M. , Nikitina, S. A. , & Zhdanov, S. P. (2025). Personalized learning through AI: Pedagogical approaches and critical insights. *Contemporary Educational Technology*, 17(2), ep574. <https://doi.org/10.30935/cedtech/16108>
- [3] Bondie, R. (2023). Exploring personalized learning and open education pedagogy in multilingual learner contexts. *Journal of Educational Technology & Society*, 26(3), 45–58.
- [4] Chafouleas, S. M. (2021). *Supporting child and student social, emotional, behavioral, and mental health needs*. U. S. Department of Education. <https://www.ed.gov/sites/ed/files/documents/students/supporting-child-student-social-emotional-behavioral-mental-health.pdf>U. S. Department of Education
- [5] California Department of Education. (2023). *Social and emotional learning*. <https://www.cde.ca.gov/eo/in/socialemotionalllearning.asp>
- [6] O'Shea, T. (2023). Using inquiry-based learning to encourage student agency. *Edutopia*. <https://www.edutopia.org/article/inquiry-based-learning-student-agency/Edutopia>
- [7] National Center for the Improvement of Educational Assessment. (2025). *A review of the literature on student agency*. <https://www.nciea.org/wp-content/uploads/2025/01/Student-Agency-Report-Final.pdf>
- [8] Reigeluth, C. M. , & Karnopp, J. R. (2020). Vision and action: Reinventing schools through personalized competency-based education. *Marzano Resources*.
- [9] Kappan Online. (2025). *Fostering student agency to transform education*. <https://kappanonline.org/fostering-student-agency-to-transform-education/KappanOnline>
- [10] Vorobyeva, K. I. (2025). Personalized learning through AI: Pedagogical approaches and critical insights. *Contemporary Educational Technology*, 17(2), ep574. <https://doi.org/10.30935/cedtech/16108>
- [11] ResearchGate. (2025). *Call for chapters: Human-centered approaches to AI-enhanced English language learning and teaching*. [https://www.researchgate.net/publication/389914171\\_Call\\_for\\_Chapters\\_Human-Centered\\_Approaches\\_to\\_AI-Enhanced\\_English\\_Language\\_Learning\\_and\\_TeachingResearchGate](https://www.researchgate.net/publication/389914171_Call_for_Chapters_Human-Centered_Approaches_to_AI-Enhanced_English_Language_Learning_and_TeachingResearchGate)
- [12] ScienceDirect. (2025). *Human-centred learning analytics and AI in education: A systematic review*. <https://www.sciencedirect.com/science/article/pii/S2666920X2400016X>