E-B
Environment - Behaviour
Proceedings Journal

$AQoL2025Cherating$

https://www.amerabra.org/
09th Asia-Pacific International Conference on Quality of Life
Holiday Villa Beach Resort & Spa, Cherating, Malaysia, 17-18 Oct 2025

e-IPH
e-International
Publishing House Ltd.,
United Kingdom

Five-Step English Learning Model in Improving English of High School Students in Jinan, China

Juan Li[1, 2], Joseph Boon Zik Hong[1*], Cheong Tau Han[1], Parmjit Singh[1]
*Corresponding Author

[1] Department of Mathematics Education, Faculty of Education, Universiti Teknologi, MARA Campus Selangor,Malaysia
[2] Shandong Jigang Senior High School, China

2021886286@student.uitm.edu.my, lijuanmailchina@163.com, josephboon@uitm.edu.my, cheongtauhan@uitm.edu.my, parmj378@uitm.edu.my
Tel: +86 15615613908

Abstract

This study explored the impact of the Five-Step English Learning Model on improving English proficiency and motivation among high school students in Jinan, China. The model comprises five sequential stages: starting, constructing, consolidating, applying, and summarizing. The research was conducted over three months across six classes: three adopted the model, while three continued traditional teaching. The results revealed notable gains in students' language performance, participation, and intrinsic motivation. By emphasizing active learning and practical application, the study supports the Five-Step Model as an effective, learner-centered method to enhance English education and bridge the gap between exam skills and holistic development.

Keywords: Five-Step English Learning Model, senior high school students, English performance, effectiveness of the model

1.0 Introduction

English, as the primary international language today, plays a vital role in students' studies and future lives or careers. However, there are several issues with Chinese students learning English. The English learning outcomes fall far short of the efforts made by Chinese students (Liu, 2019). English classes are required in China's primary schools beginning in the third year for a four-year term, secondary schools for six years, and colleges and universities for the first two years (Yue, 2016). This adds up to more than 2,000 hours of study in English, more than in any other course, yet students' English language competence is so disappointing. Superficial learning dominates English class (He, 2019). In English class, teachers usually transmit knowledge to students who, in turn, mainly memorize words, sentences, and grammar. There is no room for them to use their mind to observe, think and construct their own meanings. Besides, their overall language, learning, and thinking abilities, as well as their whole-person development, have not been fully cultivated. Most students lack motivation for English learning (He, 2019). In the context of exam-oriented education, students are deprived of the pleasure of learning and are under pressure to achieve high scores. Seldom do they learn English out of interest, and therefore many students are unwilling to get engaged in class activities and teachers have to push them forward (Lu, 2019).

The essence of classroom teaching is a formal learning process with clear goals, facilitated with active student participation. According to cognitive psychology, classroom learning primarily involves three processes: obtaining learning results, consolidating learning results, and applying learning results. Besides these three main processes, there are two auxiliary processes: the learning initiation process and the learning summary process. These five processes are the five core elements of classroom learning. These five

core elements are named as starting, constructing, consolidating, applying, and summarizing. The Five-step learning model was introduced by Liu Jingbo, who suggested steps for students' learning (Liu, 2019). In this study, the model is integrated into English classrooms by the researcher. The process of acquiring learning outcomes is called construction, emphasizing that learning should primarily occur through construction rather than indoctrination. The learning results here not only refer to knowledge, but also include skills, methods, emotions, attitudes, values, abilities, character, accomplishment, and so on. Therefore, the objectives of this study are to identify the impact of the Five-Step English Learning Model on students' English language proficiency; to determine its effect on student motivation and engagement; and to establish whether this model can serve as a viable alternative to traditional teaching methods in the Chinese high school context. The Five-step learning model is shown in Fig 1.
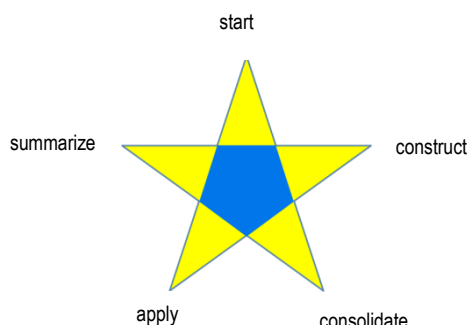

Fig. 1 The Five-Step English Learning Model

2.0 Literature Review
The five-Step English Learning Model is a structured framework designed to improve the quality and outcomes of classroom learning by aligning with principles of cognitive and constructivist learning theories. The five core stages —Start, Construct, Consolidate, Apply, and Summarize — are grounded in well-established educational psychology and instructional design principles (Liu, 2019; Mayer, 2021, 2024). Each stage is briefly described below, along with supporting literature

Step 1. Start
The "Start" phase prepares learners mentally and emotionally for the upcoming learning experience. It goes beyond a typical classroom introduction by activating prior knowledge, stimulating curiosity, and setting the emotional tone for learning. Techniques include relating content to students' past and future experiences, posing thought-provoking questions, and designing challenges that foster engagement.
This aligns with information processing theory, which emphasizes the importance of attention and retrieval cues at the beginning of a learning episode (Wixted, 2024). Starting with contextually rich, meaningful input helps learners build relevance and motivation (Sheehan, 2020).

Step 2. Construct
"Construct" refers to the process by which learners build new knowledge by integrating external input with existing cognitive structures. This phase supports the constructivist learning theory, particularly the social constructivist model, where learning is co-constructed through interaction with teachers and peers (Vygotsky & Cole, 2018).
Effective construction requires:
1. Starting from prior knowledge and personal experience.
2. Ensuring content is meaningful and connected to the learner's world.
3. Integrating new knowledge into the learner's existing mental frameworks.
This step contrasts with rote learning by emphasizing active cognitive engagement and knowledge transformation (Hatahet, 2025).

Step 3. Consolidate
Consolidation focuses on transferring new knowledge into long-term memory, aligning with cognitive neuroscience perspectives on memory encoding and retention. Declarative knowledge (facts, concepts) is stored in the semantic memory, while procedural knowledge (skills) is acquired through repetition and stored in the procedural system (Souza et al., 2022).
According to Sweller's Cognitive Load Theory, memory and practice are essential for efficiently embedding knowledge (Sweller et al., 2019). Therefore, this stage utilizes spaced repetition, practice activities, and formative assessment to strengthen both factual and skill-based learning.

Step 4. Apply
The "Apply" phase allows students to transfer and use their knowledge in authentic or simulated situations. This stage is critical for developing higher-order thinking skills such as analysis, synthesis, and evaluation (Ghanizadeh et al., 2020). It includes three levels of application:

1. Solving practical, real-life problems.
2. Applying knowledge in hypothetical or academic scenarios.
3. Internalizing learning for character development and long-term personal growth.
Authentic learning tasks in this phase mirror real-world challenges and help close the gap between academic content and real-life utility (Herrington et al., 2020).
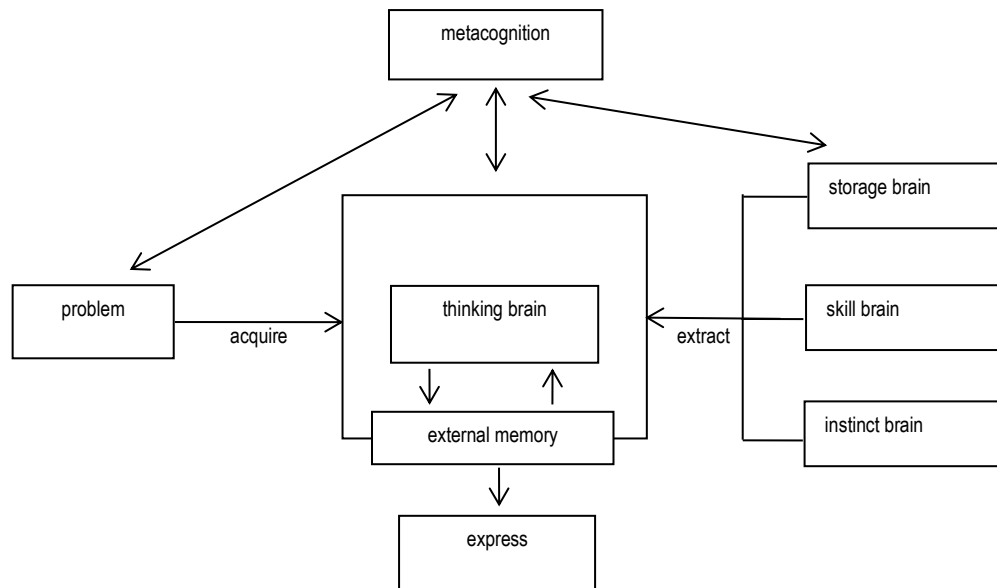

Fig 2: Application model diagram

Step 5. Summarize
The final stage, "Summarize," involves reflection, self-assessment, and synthesis of what has been learned. Tools such as guided questions, mind maps, summary tables, and error-correction logs support metacognitive development. A well-designed summary enables learners to recognize patterns, correct misconceptions, and plan for future improvement.

Research on metacognition and self-regulated learning shows that structured reflection significantly enhances retention and transfer of learning (Zimmerman & Schunk, 2020). Tools like mind mapping and self-questioning frameworks support deeper learning and long-term retention.

Professional summary must have professional tools. Professional tools make summary more effective. Summary tools include questions, tables, graphics and other tools. Here are some examples. Students can also create their own summary tools.

Tool 1: for the problem chain based on system summary:
What is my goal?
What have I actually achieved?
Why are there differences between goals and reality?
What can I learn from it?

Tool 2: problem chain based on learning methods summary:
What did I learn?
How do I learn?
Do I have any better learning methods?
What inspired me from this study?

Tool 3: problem chain summarized after wrong questions:
What kind of mistake did I make?
Why did I make such mistakes?
What can I do?
If I don't know what's wrong, how can I find help?

Tool 4: a more specific problem chain after learning a chapter. For example, after learning "explore the sum of inner and outer corners of polygons", the following problem chain is designed:
What do I get from this lesson?
What method do I use to explore the sum of interior angles of polygons?

What mathematical ideas and methods have I learned in this lesson?

Tool 5: systematic summary table.

Table 1: Systematic Summary Table

goal	assessment	reflection	sorting

Tool 6: mind mapping.
Mind mapping is a good tool for summarizing, as it can turn a long list of monotonous information into a colorful, memorable, and highly organized diagram that aligns with your brain's natural way of doing things.

Tool 7: error correction book.
Error correction books are also commonly used by students. The purpose of the error correction book is not to record, but to analyze the causes of errors and find targeted measures. Everyone can use their own error correction book.

3.0 Methodology

The use of the interview in research represents a shift from viewing human participants as merely manipulable sources of data, toward recognizing knowledge as co-constructed through interpersonal interaction (Kvale, 1996). According to Kvale (1996), an interview is an interchange of views between two or more individuals on topics of shared interest, emphasizing the centrality of human interaction in knowledge creation and the socially situated nature of research data. Interviews serve as a versatile data collection method, enabling engagement across multiple sensory channels—verbal, non-verbal, visual, auditory, and, particularly in online settings, written forms. While the interview structure can be managed to maintain focus, it also allows for spontaneity, enabling the interviewer to probe for in-depth and nuanced responses.

This study implemented the Five-Step Learning Model over a period of three months at Jigang Senior High School in Jinan, Shandong, China. Three English teachers and six classes participated: classes 1, 3, and 5 served as the control groups, while classes 2, 4, and 6 served as the experimental groups. During the study period, the experimental classes adopted the Five-Step Learning Model, whereas the control classes continued with their regular instructional methods.

At the conclusion of the intervention, interviews were conducted with three English teachers and three groups of students to explore their perceptions of the English learning model. Each student group consisted of five participants selected from classes 2, 4, and 6, for a total of 15 interviewed students from a broader pool of 50 students who took part in the study. Each interview was held in the school office, lasted approximately 40 minutes, and was both recorded and accompanied by the researcher's notes.

Interview participants were informed in advance that the sessions would be recorded solely for scientific research purposes. They were assured that all personal information would remain confidential and would not be disclosed. Before recording, the researcher reconfirmed participants' willingness to proceed and obtained their consent. They were also informed that their participation was entirely voluntary and that they could withdraw at any time without any negative consequences.

Regarding the questionnaire component, participants were clearly briefed on the study's objectives and how their responses would be analyzed. All questionnaire responses were anonymous. The researcher guaranteed that the data collected would be used exclusively for this study and would not be shared or repurposed in any other context.

4.0 Findings

This study adopted thematic analysis as the primary method for analyzing qualitative data collected from teacher and student interviews. Thematic analysis is a widely accepted approach for identifying, analyzing, and interpreting patterns of meaning within qualitative data. Following the six-phase framework proposed by Braun and Clarke (2006), the researcher examined the interview transcripts carefully: familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. Codes were created to capture significant units of meaning, which were then clustered into broader themes. Teachers' and students' responses were analyzed separately to ensure a balanced understanding of each group's experiences, while cross-comparison enabled the identification of converging patterns and divergent insights. This approach allowed the study to remain

grounded in participants' voices while systematically identifying recurring themes relevant to the effectiveness and challenges of implementing the Five-Step English Learning Model. (Caulfield, 2022).

4.1 In-depth Analysis Based on Teacher Interviews
The following are the summary of the interview, which encapsulates the key points and insights gathered from the discussion with three senior high school English teachers. Among the 8 questions posed during the interview, the three teachers share similarities in their answers, indicating a consensus or alignment in their perspectives on the subject matter.

Over a three-month implementation period, the three teachers observed predominantly positive changes in their students' learning behaviors, attitudes, and outcomes as a result of the "Five-Step learning model." The model is credited with providing a clear, structured framework that enhances student engagement, autonomy, and the practical application of language. Teachers reported a significant shift in their own roles from knowledge deliverers to learning facilitators. While the model was generally welcomed by students, the teachers consensus points to a need for greater flexibility in its application, improved differentiation strategies, and enhanced resources for the "Application" stage to cater to diverse learning paces and styles.

Analysis of the teacher interviews revealed three prominent themes. First, teachers reported enhanced student engagement and autonomy, attributing these changes to the model's structured yet student-centered framework. They observed that students were more active, motivated, and confident, especially during the "Start" and "Apply" phases. Second, teachers noted a pedagogical shift in their instructional roles moving from knowledge deliverers to facilitators of learning. This transition encouraged richer classroom interaction and learner responsibility. Third, teachers pointed out challenges in implementation, particularly with the "Apply" phase. They expressed the need for greater flexibility, differentiated instruction, and more robust materials to support diverse learning needs and paces.

4.2 In-depth Analysis Based on Students Interviews
Through semi-structured interviews with three student groups, the researcher found that the model was widely recognized as clear, systematic, and effective in enhancing learning purpose, knowledge internalization, and application ability. Students also identified challenges and offered suggestions for improvement at each stage.
1. Effect evaluation: Most students reported steady progress, particularly in reading and writing, as the knowledge structure became stronger. The "Start" and "Apply" stages increased interest and transformed English from a subject into a useful tool. Successful application, especially in speaking, boosted their confidence.
2. Challenges: The "Apply" phase was the most difficult due to limited real-life language exposure, fear of mistakes, and uncertainty about how to use learned content creatively.
3. Sustainability: All students wished to continue using the model, suggesting more realistic application activities (e.g., role-plays, projects), group-based summaries, and flexible time allocation.

Overall, student interviews confirmed the model's effectiveness in making English learning purposeful and engaging. Despite the challenges, students showed improved confidence, clearer understanding, and strong willingness to persist with the model.

5.0 Discussion
The findings demonstrate that the Five-Step English Learning Model is a promising instructional framework aligned with constructivist and learner-centered educational principles. The observed shift in student engagement, knowledge internalization, and practical language use validates the model's core emphasis on active construction and real-life application of knowledge. These outcomes align with existing literature that advocates for learner autonomy, deeper processing, and contextualized learning as key drivers of long-term academic growth. Recent research also supports the role of structured learning and representational reasoning in enhancing student engagement and understanding (Boon et al., 2024). However, the "Apply" stage emerged as a common point of difficulty, highlighting the limitations of EFL contexts like China where authentic language exposure is limited. Students' hesitancy and lack of opportunities for real-world application suggest a need for increased scaffolding, better task design, and a supportive classroom culture that reduces the stigma around making mistakes.

6.0 Conclusion& Recommendations
Based on the interview analysis, the Five-Step learning model, as a structured teaching method, has achieved remarkable results in stimulating learning motivation, promoting knowledge internalization, and enhancing practical language application. The model has been positively received by both students and teachers, particularly for its clarity, sequence, and ability to support autonomous learning. Teachers observed a shift toward deeper engagement and more meaningful learning, while students reported increased confidence and a greater sense of purpose in using English.

For teachers, the "application" stage should be enriched with more low-risk, high-interest language application scenarios (such as class English days, video blog assignments, etc.), and students should be encouraged to try boldly and not be afraid of making mistakes. In the "summarize" stage, students can be guided to use more efficient summarization tools (such as digital mind maps). At the same time, for students, it is necessary to enhance their initiative in the "summary" stage, regard the summary as a necessary link in personal learning rather than just a task, and bravely seize practical opportunities in the "application" stage to overcome the fear of difficulties.

For practical implementation, teachers should focus on enriching the "Application" stage by incorporating low-risk, high-interest language scenarios such as classroom English days, role-plays, or video blog assignments to create more authentic and enjoyable

opportunities for use. Students should be actively encouraged to participate without fear of making mistakes. In the "Summarize" stage, students can be supported in using more efficient tools such as digital mind maps, reflection journals, or peer-led review sessions. Equally important is fostering student ownership of the summarizing process, helping them see it as a vital component of their personal learning cycle rather than a teacher-directed task.

Future research should address these limitations by including a larger and more diverse sample, clearly reporting class sizes, and incorporating mixed-method approaches that combine qualitative insights with quantitative performance data. Longitudinal studies could also explore the sustained impact of the model on language acquisition over time. Additionally, comparative studies with other pedagogical models would help validate the Five-Step Model's unique contribution across different cultural and instructional settings. Overall, the study highlights the promise of structured, student-centered instruction and offers practical insights for improving English language education in secondary schools.

6.1 Limitations of the Study
This study is currently concentrated exclusively on the city of Jinan, due to the fact that China possesses an exceptionally large population and an expansive geographical territory. Given the immense scale and diversity of the country, it is impractical to encompass a broader scope at this initial stage. Since this endeavor is merely a preliminary experiment, the methodology employed is not yet sufficiently developed to comprehensively cover all academic courses. The limitations of this initial phase necessitate a focused approach to ensure the accuracy and reliability of the findings. As a result, further recommendations will be based on the outcomes of this localized study, to gradually expand the scope and refine the methodology to eventually cover a wider range of courses and regions.

Acknowledgement

Paper Contribution to Related Field of Study
This paper makes a significant contribution to the field of English teaching and learning, especially in high schools in China. Through the results of the study, teacher and school may develop a suitable module for students who struggle in learning English.

References
Boon, J. Z. H., Cheong, T. H., Atan, N. A. S., Rosli, M. S., & Noor, H. M. (2024). Global education: Computational thinking's role and relationships explored. *Environment-Behaviour Proceedings Journal, 9*(27), 361–367* https://doi.org/10.21834/e-bpj.v9i27.5709

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.

Caulfield, J. (2022). *How to do thematic analysis: A step-by-step guide*. Scribbr. https://www.scribbr.com/methodology/thematic-analysis/

Ghanizadeh, A., Al-Hoorie, A.H., & Jahedizadeh, S. (2020). Higher order thinking skills. In Higher order thinking skills in the language classroom: *A concise guide* (pp. 1–51). Cham: Springer International Publishing.

Hatahet, T. (2025). Supporting active learning opportunities with feedback enhances student achievement in pharmaceutical innovation module: Implication of behavioural and cognitive engagement. *Social Sciences & Humanities Open, 11*, 101347.

He, X. (2019). *A study on the current English teaching and learning in China* [Master's thesis, Inner Mongolia University for the Nationalities]. Inner Mongolia.

Herrington, J., Reeves, T.C., & Oliver, R. (2020). *Authentic learning environments in higher education.* IGI Global.

Kvale, S. (1996). *Interviews.* London: Sage.

Liu, J.B. (2019). *High quality learning*. Shenzhen: Zhuhai Publishing Company.

Lu, M. (2019). *Research on classroom foreign language learning. Jinan*: Shandong University Press.

Mayer, R.E. (2021). Evidence-based principles for how to design effective instructional videos. *Journal of Applied Research in Memory and Cognition, 10*(2), 229–240.

Mayer, R.E. (2024). The past, present, and future of the cognitive theory of multimedia learning. *Educational Psychology Review, 36*(1), 8.

Sheehan, C.Z. (2020). *The context of learning: A multi-grounded theory of the moderating variables of teaching and learning* (Doctoral dissertation, Texas A&M University).

Souza, C., Garrido, M.V., Horchak, O.V., & Carmo, J.C. (2022). Conceptual knowledge modulates memory recognition of common items: The selective role of item-typicality. *Memory & Cognition, 50*(1), 77–94.

Sweller, J., van Merriënboer, J.J.G., & Paas, F.G. (2019). Cognitive architecture and instructional design: 20 years later. *Educational Psychology Review, 31*(2), 261–292.

Vygotsky, L., & Cole, M. (2018). Lev Vygotsky: Learning and social constructivism. *In Learning theories for early years practice* (pp. 68–73). London, UK: SAGE Publications.

Wixted, J.T. (2024). Atkinson and Shiffrin's (1968) influential model overshadowed their contemporary theory of human memory. *Journal of Memory and Language, 136*, 104471.

Yue, X. (2016). *English education reform in China: Current situation and challenges*. Beijing: Foreign Language Teaching and Research Press.

Zimmerman, B.J., & Schunk, D.H. (2020). *Self-regulated learning: Theories, measures, and outcomes*. Springer.