



OPEN ACCESS

EDITED BY

Javad Gholami,
Urmia University, Iran

REVIEWED BY

Rajab Esfandiari,
Imam Khomeini International University, Iran
Farhad Mazlum,
University of Maragheh, Iran
Mahsa Alinasab,
Urmia University, Iran

*CORRESPONDENCE

Forough Amirjalili
✉ f.amirjalili@yazd.ac.ir

RECEIVED 03 December 2023

ACCEPTED 21 February 2024

PUBLISHED 05 March 2024

CITATION

Nikbakht A, Neysani M and Amirjalili F (2024) Revolutionizing language learning: Unleashing the power of the engage model to supercharge writing skill in cognitively more and less active EFL learners. *Front. Educ.* 9:1348871. doi: 10.3389/educ.2024.1348871

COPYRIGHT

© 2024 Nikbakht, Neysani and Amirjalili. This is an open-access article distributed under the terms of the [Creative Commons Attribution License \(CC BY\)](https://creativecommons.org/licenses/by/4.0/). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Revolutionizing language learning: Unleashing the power of the engage model to supercharge writing skill in cognitively more and less active EFL learners

Ahmadreza Nikbakht, Masoud Neysani and Forough Amirjalili*

Department of English Language and Literature, Yazd University, Yazd, Iran

The ever-growing need for fluency in written English around the world, because of the role of English as the world's international language, has given priority to finding more effective ways to its teaching. The present study aimed to investigate the effect of using the ENGAGE Model on writing performance of EFL learners through a mixed-method study. The participants of the study were 60 advanced level female EFL learners with the age range of 20 to 30 in one of the private language institutes in Isfahan, Iran. The participants were non-randomly selected from a large pool of advanced female students. The selected participants were assigned to the two groups of the ENGAGE Model (the experimental group) and TBLT (the control group), with 30 students in each. The participants were also specified in terms of their cognitive ability as cognitively more or less active based on their answers to a validated cognitive profile questionnaire. In the quantitative phase of the study, the participants went through the processes of pre-testing, intervention, and post-testing and the data collected were fed into the SPSS software version 26. The results revealed that the ENGAGE Model had a statistically significant effect on the writing development of cognitively more and less active EFL learners. The qualitative findings of the study proved that the cognitively more active learners enjoyed the ENGAGE Model class more than the cognitively less active ones. Likewise, the cognitively more active learners could benefit from the class more than their counterparts in the cognitively less active camp and assessed themselves more positively in terms of L2 writing. The finding of the study suggested that EFL teachers and stakeholders should increase interaction and higher-order thinking, and make connections to learners' previous learning.

KEYWORDS

cognitively less active, cognitively more active, EFL learners, ENGAGE model, writing performance, TBLT

1 Introduction

Achieving proficiency in written English is a primary goal for many second-language and foreign language learners, given the critical role these skills play in effective communication (Hughes, 2013). The ability to express oneself verbally and in writing enhances practical communication skills in ways that solely focusing on reading or listening cannot achieve. Consequently, learners often gauge their language learning success and the effectiveness of their English courses based on improvements in spoken and written proficiency (Kim and Craig, 2012; Ghanizadeh et al., 2018; Robillos, 2023).

While the teaching of language skills has been a central focus in EFL and ESL courses across different contexts (Albino, 2017; Vellanki and Bandu, 2021), determining the most effective approach to imparting these skills has been a subject of ongoing methodological debate. Similarly, the development of second language writing, particularly in writing enhancement, has been a prominent area of research in recent decades, with studies highlighting the advantageous status associated with possessing proficient writing skills (Celce-Murcia, 2001; Faridi et al., 2020). Despite being considered the last language skill to be mastered according to the natural order hypothesis, writing is deemed equally vital as other language skills.

The significance of understanding the difficulties faced by foreign language learners has led to a focus on equipping EFL students with the literacy skills necessary for success in tertiary institutions abroad (Baker, 2015; Robillos and Thongpai, 2022). However, many studies, including those by Baker (2015), Kim and Craig (2012), and Kozulin (2002), have predominantly centered on reading and writing skills. Notably, both writing skill pose challenges for EFL students, even when studying in English speaking countries (Kung, 2013). Moreover, EFL learners are often perceived as reserved in the classroom (Sadeghi and Maleki, 2015; Robillos, 2021, 2022).

One of the most frequently cited teaching methods is Task Based Language Teaching (TBLT). TBLT was in fact initiated by Prabhu (1987), who used a task-based approach with secondary school classes in Bangalore, India, on his Communicational Teaching Project, beginning in 1979 (Ellis, 2008; Ahmad, 2022). Then, the American government language institutions switched to Task-based Instruction (TBI) for foreign languages for adults in the early 1980s (Howatt and Widdowson, 2004). Task-Based Language Teaching (TBLT) is an extension of the principles of Communicative Language Teaching. In CLT the syllabus is specified in terms of functions and notions. In fact, instead of specifying grammatical or structural items like *simple past* or *comparative adjectives*, the syllabus in CLT specifies items like making requests or talking about the past. What the learner is taught of course is the realization of the notions and functions (Ellis, 2009).

As Ellis (2005) discusses, through pre-task planning and within-task planning, the advocates of CLT and TBLT focus on real language use in various language skills. Natural learning within the classroom context is one of the gifts of TBLT to learners. It also emphasizes meaning over form but at the same time can cater for learning form. A rich input of target language is presented within the learning process to the learners. It reinforces

intrinsic motivation. Not only is it compatible with a learner-centered educational philosophy but also allows for teacher input and direction. Both fluency and accuracy aspects of communicative activities are considered in the TBLT. Likewise, it can be used alongside a more traditional approach such as CLT (Day et al., 1998; Ellis, 2003; Ellis et al., 2019; Pham and Do, 2021; Wang, 2022).

TBLT according to Ellis (2009) suffers from a number of practical problems:

There is no single approach to language teaching that should be adopted in all teaching contexts? (p. 243). The classroom practices required by TBLT can be seen as culturally loaded situations which are much too energized by the western culture. There may be cultural barriers to the uptake of TBLT in some parts of the world where people are highly self-culture oriented. Another problem within the scope of TBLT goes back to the misunderstanding of the concept of focus on form. Some individuals might think it only pertains to grammar, while it is largely related to vocabulary as well as pronunciation.

Halsey (2016) proposed that the brain can be doing anything while being subjected, for example, to a lecture, and it frequently does. He concluded, therefore, that traditional approaches to teaching cannot engage the learner's mind. To engage the mind, Halsey and Halsey (2017) recommend that naturalistic education programs employ active learning strategies. One of the methods that incorporates such strategies is the ENGAGE Model by Halsey (2011) which takes a six-step approach to teaching content by using active learning techniques combined with utilizing meaningful interpretation? (Halsey and Halsey, 2017, p. 3). It is argued that the ENGAGE Model is a model where students are actively engaged in mastering knowledge and skills and applying them to a real problem utilizing available technology tools. Halsey and Halsey (2017) present that:

The ENGAGE Model is based on the observation that single modality teaching (i.e., lecturing) is not effective because it is passive. The model can be used by a single interpreter working with a group on the trail or while teaching content in a traditional classroom. The point to remember is that those who do the teaching do the learning (p. 3). The ENGAGE Model is based on the observation that single modality teaching (i.e., lecturing) is not effective because it is passive. The model can be used by a single interpreter working with a group on the trail or while teaching content in a traditional classroom. The point to remember is that those who do the teaching do the learning (p. 3).

Understanding the role of cognition, defined as the mental process of acquiring knowledge through thought, experience, and the senses, is crucial in the learning process, particularly in second language development.¹ Attitudinal cognition focuses on both cognitively active and less active learners, emphasizing the significant role cognition plays in attitude change (Rosenberg and Abelson, 2017).

In summary, the challenges in teaching writing skill in a foreign language necessitate exploring various methodologies such as TBLT and the ENGAGE Model. Recognizing the importance of cognition and adopting effective teaching approaches are essential for enhancing language proficiency among EFL learners. The

¹ www.oxforddictionaries.com

current research aims to explore the methodologies employed in teaching writing, with a focus on the effectiveness of Task-Based Language Teaching (TBLT) and the ENGAGE Model.

Cognitive learning, grounded in cognition and cognitive load theory, encompasses key processes such as sensation, perception, attention, encoding, and memory, all of which play vital roles in the language learning process (Jordan et al., 2008; Toro et al., 2020). The diverse cognitive orientations of learners lead to variations in behavior during second language (L2) development.

The ENGAGE Model, a recent influential addition to the learning and teaching landscape, posits learning, including L2 acquisition, as a natural, brilliance-oriented process that requires active participation in natural and socially mediated activities (Halsey, 2011; Borg and Alshumaimeri, 2019; Zhang et al., 2019). TBLT, influenced by cognitive load theory, aligns with a cognitive perspective, considering aspects such as sensation, perception, attention, encoding, and memory in the context of L2 learning (Leahy and Sweller, 2016).

Task Based Language Teaching (TBLT), informed by communicative language teaching principles, involves task-based learning and is grounded in communication-oriented teaching (Feez and Joyce, 1998; Murphy, 2019). Noteworthy insights into L2 writing within the TBLT framework come from Byrnes and Manchón (2014), emphasizing the pedagogical goal of effective written communication. Collaborative writing practices, as proposed by Storch (2013), and the importance of task repetition, as argued by Nitta and Baba (2014), are considered essential for effective L2 writing development. Sundari et al. (2018) have demonstrated the positive impact of task-based materials on students' writing skills, encompassing format, content, organization, and grammar.

Within the TBLT approach, task planning emerges as a paramount consideration, according to Ellis (2005). This planning phase not only holds theoretical significance for second language acquisition research but also proves practically significant for language teachers, influencing the language learners' production. Erlam and Ellis (2018) stress the importance of planning, aligning it with crucial constructs such as controlled processing, limited capacity memory, and focus-on-form, contributing to theories of L2 use and acquisition. Yim and Warschauer (2017) argue that task planning is a pivotal variable, manipulable by teachers to enhance the teaching process.

The ENGAGE Model, introduced by Halsey (2011), advocates for a naturalistic-oriented educational approach, emphasizing active learning strategies. Active learning, as highlighted by Halsey and Halsey (2017), is crucial for engaging learners' minds and facilitating the mastery of knowledge and skills through meaningful problem-solving using available technology tools.

Language teaching advancements, especially in writing skills, are attributed to the teacher's ability to organize activities, create realistic communication tasks, encourage student efforts, and establish appropriate objectives (Chastain, 1988). Recent trends prioritize engaging students in meaningful communication activities within the classroom, resulting in improved language skills (Hedge, 1993). However, despite progress, EFL university students often encounter challenges in writing tasks, stemming from linguistic insecurities and proficiency concerns (Kim, 2014; Baker, 2015; Eslami et al., 2015; Asaoka, 2019).

Considering the ever-growing needs of Iranian L2 learners in terms of writing, the present study was an attempt to compare the two methods of TBLT (as the current English teaching practice in Iran) and the ENGAGE Model, in teaching writing. The researcher also tried to find out if the cognitively more and cognitively less active EFL learners were affected differentially by these two teaching practices.

One of the methods focused on in the present study is TBLT, as a relatively modern method, which has recently been employed by a lot of institutes through using teaching materials such as *Top-Notch Series* (Saslow and Ascher, 2006) and *Touch Stone* (McCarthy et al., 2014). This method is energized by the modern communicative views of syllabuses and methodology, which are continuing to shape approaches to teaching writing skill today (Gilakjani, 2012). However, inter-culturally oriented approaches to learning such as the ENGAGE Model claim to be more life-oriented.

Few studies have examined the developing nature of students' writing skill using the ENGAGE Model. One example is Jassem (1997) who was particularly interested in tackling and enhancing Malaysian English majors' skills in academic discussions by using various methods such as written assignment-oriented seminars.

By exploring the efficacy of these teaching methods, the study aims to provide valuable insights into their application in the Iranian EFL context and contribute to the ongoing discourse on enhancing language proficiency among EFL learners. Considering the problems stated above and the purpose of the present study, the following research questions were formulated:

1. Does the ENGAGE Model have any statistically significant effect on the writing development of cognitively less active EFL learners?
2. Does the ENGAGE Model have any statistically significant effect on the writing development of cognitively more active EFL learners?
3. Do cognitively more and less active EFL learners differ significantly in their writing performance in response to being taught with the TBLT or the ENGAGE Model?
4. What are the perspectives of cognitively more and less active EFL learners on employing the ENGAGE Model in the EFL classroom?

2 Materials and method

2.1 Research design

The research team in this investigation utilized a mixed methods design, commencing with quantitative data analysis followed by qualitative data analysis (Creswell and Clark, 2017). In the quantitative phase, a quasi-experimental design was employed, involving non-random participant selection and random allocation to experimental groups. Both independent variables, teaching style (ENGAGE Model and TBLT) and cognitive profile (less or more active), were considered, with L2 writing development as dependent variables. Language proficiency level and gender were controlled.

2.2 Participants

The study involved 60 advanced-level female participants, aged between 20 and 30, enrolled in a private language institute in Isfahan, Iran. Selection was based on performance in a Preliminary English Test (PET), following a non-random process. Initially, a pool of 100 advanced female students underwent PET testing, with 60 individuals ($n = 60$) selected based on scores falling within 1 standard deviation (1SD) above and below the mean. This sample size adhered to the recommendations of [Krejcie and Morgan \(1970\)](#) for research activities involving at least 60–66 individuals from a pool of 100 subjects.

2.3 Instrumentation

The researchers employed seven instruments:

2.3.1 Preliminary English Test (PET)

A standardized language proficiency assessment.

2.3.2 Cognitive profile questionnaire

Developed and validated by the researcher to gather insights into participants' cognitive profiles.

A cognitive profile questionnaire was used to document the participants' cognitive profiles so that they could be placed in cognitively more or less active groups. To this end a questionnaire of 30 items measuring six general cognitive attributes of the participants was used.

2.3.3 Pre-test of writing

Evaluated participants' writing abilities before the intervention: The selected participants were assigned to the two groups of the ENGAGE Model (the experimental group) and TBLT (the control group), with 30 students in each. Due to the nature of the convenient non-random sampling, the students who did not meet the criterion were also allowed to participate in the study but their scores were not included in the analyses that followed the study.

2.3.4 Post-test of writing

Assessed participants' writing skills after the intervention: the participants in the experimental and control groups received writing post-test. In fact, the writing test measured the L2 writing development of the learners. An inter-rater scoring system was used to score the learners' performance in writing test and then the inter-rater reliability of the scores of the learners for this test was taken into consideration.

2.3.5 Interview guide

Utilized for qualitative insights during interviews with participants.

2.3.6 Course book

The advanced level of the Touchstone Series, covering Units 1 to 4 of book aligned with the Common European Framework of Reference for Languages, Touchstone emphasizes natural language use and conversation strategies. It offers a comprehensive syllabus covering grammar, vocabulary, pronunciation, listening, reading,

and writing tasks. Supporting Touchstone are online courses, student books, workbooks, CDs, DVDs, and a teacher's guide. According to [McCarthy et al. \(2014\)](#), Touchstone teaches English authentically, fostering fluency, confidence, and the development of learning strategies applicable beyond the classroom. The choice of Touchstone for this study was guided by its alignment with the Common European Framework, emphasis on communication strategies, and its reputation for promoting personalized, learner-centered interaction. The course aims to provide exposure to natural English and equip students with strategies applicable beyond the classroom setting.

In Iranian private language schools, essay writing is a common practice in the curriculum. The focus is not only on linguistic proficiency but also on critical thinking and coherent expression. Here's how it might work: Students are assigned essays regularly, perhaps once every 2^o weeks, as part of their language development program. The essay tasks vary to encompass different writing skills. For instance, students may be asked to write argumentative essays, narrative essays, or descriptive essays. The writing syllabi explicitly outline the importance of structuring essays, incorporating varied vocabulary, and developing a clear thesis statement. The content may be aligned with real-world scenarios or current events to make the writing more relevant. Teachers provide constructive feedback on each essay, focusing not only on grammar and vocabulary but also on the logical flow of ideas. Revision is encouraged, allowing students to learn from their mistakes. Some schools might incorporate technology by having students submit essays electronically, allowing for easy feedback exchange and revision through digital platforms. The professional development program begins with an introduction to the Engage Model, emphasizing its principles of active student participation, collaboration, and hands-on learning. The workshop is designed to align with the Engage Model. It includes interactive sessions, group activities, and discussions to actively involve teachers in the learning process. Teachers participate in hands-on exercises related to essay writing within the Engage Model. For example, they might collaborate to create engaging essay prompts or design interactive activities that encourage critical thinking. The workshop guides teachers in applying the Engage Model to their essay writing lesson plans. They learn how to structure lessons that actively engage students in the writing process, making it more dynamic and participatory. Teachers engage in collaborative sessions where they share ideas on how to incorporate the Engage Model into essay writing instruction. This includes peer review of lesson plans and collaborative brainstorming for innovative approaches. The professional development program emphasizes continuous feedback and reflection. Teachers discuss how the Engage Model can be adapted to different essay writing tasks and reflect on the effectiveness of the strategies they implement. Experienced educators or facilitators model specific Engage Model techniques applicable to essay writing. For instance, they might showcase how to facilitate group discussions, conduct interactive brainstorming sessions, or incorporate technology for collaborative writing. Following the workshop, teachers implement the Engage Model in their essay writing classes. This could involve interactive peer review sessions, collaborative essay planning, or using multimedia to enhance the writing experience. The school provides ongoing support, including classroom observations and mentorship, to ensure teachers effectively integrate the Engage Model into their

essay writing instruction. This helps in addressing challenges and refining strategies.

The study utilizes specific writing tasks that are representative of the skills and competencies targeted for development. These tasks may include essays, compositions, or other written assignments aligned with the learning objectives. A detailed rubric is designed to assess the writing tasks. The rubric includes distinct criteria such as grammar, vocabulary usage, organization, coherence, and overall proficiency. Each criterion is assigned specific descriptors and corresponding levels of performance. To measure writing development, participants undergo both pre-test and post-test assessments. The pre-test serves as a baseline to gauge initial proficiency levels, while the post-test evaluates the progress made after exposure to the teaching methods (TBLT and the ENGAGE Model). Objective scoring is employed to ensure reliability and consistency in the assessment process. Trained raters evaluate the writing tasks using the established rubric, assigning scores based on the predefined criteria. The collected data, consisting of pre-test and post-test scores, are subjected to quantitative analysis. Statistical methods, such as analysis of variance (ANOVA), are employed to determine if there are statistically significant differences in writing performance between the two teaching methods (TBLT and the ENGAGE Model). The choice of specific writing tasks and criteria for assessment aligns with recommendations from literature on L2 writing measurement. Scholars like [Bachman and Palmer \(1996\)](#) emphasize the importance of using diverse and authentic writing tasks to assess a range of language skills. The incorporation of a rubric draws from the work of [Hughes \(1989\)](#), who underscores the need for clear and comprehensive criteria in evaluating writing proficiency.

2.4 Data collection procedure

2.4.1 Pre-test

In the initial phase, 100 advanced-level students underwent a standard Preliminary English Test (PET). From this group, 60 students, scoring within 1 standard deviation above and below the mean, were non-randomly selected and assigned to the ENGAGE Model (experimental group) and TBLT (control group), with 30 students in each. To ensure homogeneity, writing pre-tests were administered. Inter-rater reliability indices were calculated for test reliability.

2.4.2 Intervention

The treatment spanned 10 sessions across an 8-week semester, with classes held three times a week, each lasting 90 min. Both groups received equal instruction hours. In the ENGAGE Model group, principles of the model were applied, focusing on active learning strategies. The approach involved energizing sessions, collaborative content development, personal meaning generation, real-world application, progress assessment, and extension of learning to action. The TBLT group experienced real-world language exposure through picture-based discussions and writing tasks, with feedback provided at the end of the sessions.

In the experimental group (the ENGAGE Model), the teacher used principles of the ENGAGE Model ([Halsey, 2011](#)). This

Model employs active learning strategies through naturalist education programs to engage the mind ([Halsey, 2016](#)). Hence, the following general perspectives were taken into consideration in a language classroom at the intermediate level, which served as the experimental group of the study.

Step 1: Energizing the students at the beginning of any classroom session through making them involved in the warm ups, ice-breaking discussions, talking about daily life issues, and motivating them through using gestures and postures (of course cultural issues might be impeding which should be thought of; an example is laughing with the students and using motivating gestures, facial expressions, voice changing, and the like which are not common in the Iranian context).

Step 2: Asking the students to navigate what they have gained in the energizing session and develop the new content. This step could employ the process-based syllabus ([White, 1988](#)) in which teachers and learners negotiate on decisions to be made about assignments and activities. This way the content of what was being taught was developed by the learners and the teacher monitored them.

Step 3: Helping the students generate personal meaning and connect what they have gained to their own life and what they feel given the new concepts they have learned and the topic(s) discussed in the classroom.

Step 4: Helping the students apply their learning to the real world. This was done via asking the students study about the topic selected in the classroom, use the internet, get involved in the social media, collect information about a specific issue, and then present their own perspectives in the classroom. In the next step, the students focused on what they could do to bring about a positive change in the social context and their own life.

Step 5: Making the learners gauge and celebrate their progress. This was possible though employing self-assessment (SA) in the classroom context. SA has been discussed as an important tool for autonomous language learners ([Bachman and Damböck, 2018](#)). At first, SA principles were taught to the learners and then they were trained to develop self-assessment checklists. They scored their own performance based on the checklists they developed. Subsequently, they were asked to say how much they were ready for the coming steps and procedures. Also, they were asked to assess themselves at the end of each session of the classroom and see how well they had learned what had been taught. Of course, they received relative feedback by the teacher, something which was decreased as the learners increased in the quality of their self-assessment. Various quizzes and classroom discussions were presented in the intervention sessions.

Step 6: Helping students extend their learning to action. This became possible through asking the students to use what they had learned about different issues, taking part in debates and discussions in English and if possible.

In the control group (the TBLT Group), the teacher focused on TBLT, an extension of the principles of Communicative Language Teaching. The TBLT group in the present study was exposed to real-world language. An example goes as follows:

The teacher used pictures to elicit learners' writing. Such pictures might also focus on learners' real-world language and real-life issues. The students looked at the pictures and wrote about them. They were asked to connect them to their real-life situations or bring their own family pictures to the classroom. They used photos published in a recent newspaper about a specific novel event,

like an accident or a festival, and wrote narratives, expositions, etc., and highlighted the critical points about them. Learners mainly received teacher feedback in the written form which could be labeled as written corrective feedback (WCF). In some cases, also peer corrective feedback was suggested and the students were encouraged to follow it.

2.4.3 Post-test

After the intervention, both groups underwent writing post-tests. Inter-rater scoring and reliability assessments were conducted. Additionally, interviews were conducted with 10 participants (5 cognitively more active and 5 cognitively less active) to gather perspectives on employing the ENGAGE Model in EFL classrooms.

2.5 Data analysis procedure

2.5.1 Quantitative data analysis

Descriptive statistics were applied for mean and standard deviation calculations of PET results, used for participant homogenization. Correlation coefficients assessed inter-rater reliability for writing tests. Wilcoxon-signed rank tests determined the ENGAGE Model's effect on writing development for cognitively less and more active learners, while two two-way ANOVAs were run for ENGAGE Model and TBLT groups' writing scores.

2.5.2 Qualitative data analysis

A semi-structured interview was conducted in the qualitative phase of the study. To this aim, 10 participants were selected for an in-depth, audio recorded, semi-structured interview (15–30 min long). It is worth mentioning that the justification for deciding to use a semi-structured interview was that in this data collection technique, “the researcher uses a written list of questions as a guide, while still having the freedom to digress and probe for more information” (Mackey and Gass, 2005, p. 173). In a bid to gauge the reliability of the interview questions, two language experts having PhD degree in TEFL were requested to evaluate the relevance and appropriateness of the questions through a short interview session. The amount of consistency and agreement in the experts' responses was measured and considered as the yardstick for the reliability. As pinpointed by Ary et al. (2010), the more consistent the responses, the higher is the reliability.

3 Findings

3.1 Descriptive statistics of the questionnaire

Table 1 presents the result of the Cronbach alpha test run to estimate the reliability of the Cognitive Profile questionnaire.

The Cronbach's alpha test showed high reliability for the researcher-made questionnaire. To ensure its validity, a Principal Component Analysis (PCA) was conducted. This test requires acceptable Keyser-Mayer-Olkin (KMO) and significant Bartlett's test results. KMO above 0.5 indicates adequate sampling, while

a significant Bartlett's test suggests correlations among variables. Table 2 displays the KMO and Bartlett's test outcomes.

The researchers created a simulation for sampling using Monte Carlo software. This software checks what the variance of the factors will be if we have a specific sample. Basically, parallel analysis is a method for deciding the number of factors. This method compares the size of the eigenvalues with the values obtained from the created data set, randomly with the same size. The researchers compared the values obtained in the Monte Carlo software with the total value in the Total Variance Explained in Table 3. The values of the factors that were higher in the Total Variance Explained table were kept.

The Anti-image values, indicating sampling adequacy for each variable, were generally above 0.5, meeting acceptable standards. In Principal Component Analysis (PCA), the Total Variance Explained table (Table 4 below) is crucial for determining the number of variables to retain. In this analysis, it showed that while there may be underlying major factors, there are four factors, not six, as the first four explain over 95% of the variance. Although two additional factors have eigenvalues greater than 1, they are not comparable in size to the first four.

This state of affairs does not undermine the validity of our instrument because the purpose of its construction was to see if we can use it to put the participants in cognitively more and less active groups. Whether there are six or four components to the variables of the instrument does not do harm to this purpose and its use is justified. The produced scree plot too (Figure 1), with four points of inflexion, indicates that we have to stick with the four-factor idea. Points of inflexion are points where the direction of the line in the plot changes dramatically.

TABLE 1 Reliability statistics of cognitive profile questionnaire.

Cronbach's alpha	Cronbach's alpha based on standardized items	N of items
0.984	0.715	300

TABLE 2 KMO and Bartlett's test results.

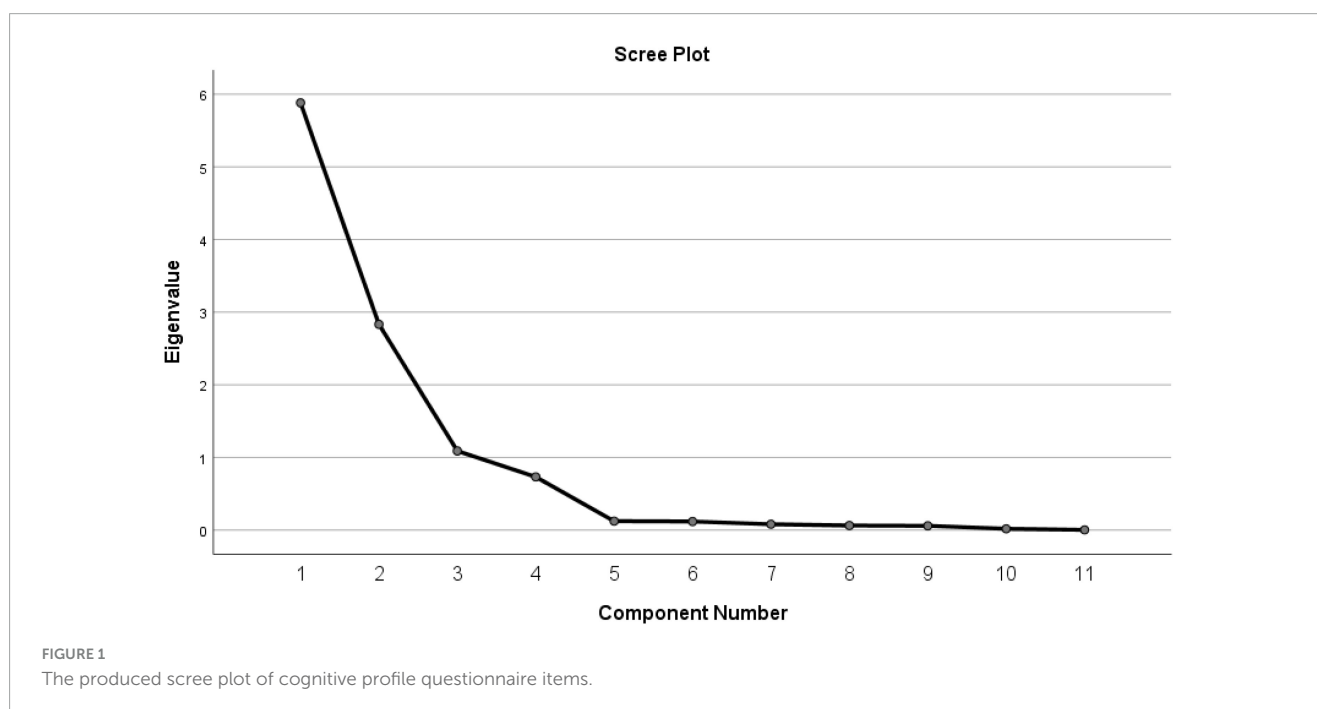
Kaiser-Meyer-Olkin measure of sampling adequacy		0.812
Bartlett's test of sphericity	Approx. Chi-Square	1067.854
	Df	55
	Sig.	0.000

TABLE 3 Monte Carlo PCA for parallel analysis.

Eigen value number	Random eigen value	Standard Dev
1	1.457	0.092
2	1.287	0.069
3	1.088	0.053
4	0.966	0.062
5	0.852	0.049
6	0.707	0.056
7	0.575	0.069

TABLE 4 Total variance explained of cognitive profile questionnaire items.

Component	Initial eigen values			Rotation sums of squared loadings				
	Total	% of Variance	Cumulative %	Total	% of Variance	Total	% of Variance	Cumulative %
1	5.881	53.466	53.466	5.881	53.466	5.706	51.872	51.872
2	2.833	25.752	79.218	2.833	25.752	2.050	18.634	70.506
3	1.089	9.901	89.119	1.089	9.901	2.047	18.613	89.119
4	0.733	6.662	95.780					
5	0.123	1.117	96.897					
6	0.118	1.072	97.969					
7	0.081	0.735	98.704					



It was in addition necessary to check for the inter-rater reliability of the tests scored by the two raters in the study. The following table, i.e., Table 5 shows the results of these analyses. As can be seen, all pairs of correlations are highly significant pointing to the high inter-rater reliability estimates.

Moreover, we had to investigate the reliability of the tests used for data collection, that is, pre- and post- writing tests. In this case we had to do two things: (1) conduct test-retest reliability analysis to figure out reliability of the tests over time, and (2) conduct Cronbach alpha analysis to obtain estimates of internal consistency reliability of the tests. Table 6 indicates that pre-test and post-test results of both writing have been moderately correlated. This can be attributed to the uneven change in the participants' proficiency as a result of treatments. The justification might be that the use of different task types in the study (the ENGAGE Model and TBLT) or the participants difference in levels of cognitive ability was the cause. This is a point that should be accepted with a grain of salt, however, since researchers usually do not have the ability to keep everything under control and the participants' performance might have been affected by other polluting variables.

Table 7 shows the results of internal consistency reliability analysis for each test. It is clear from the information included in the table, second column, that the reliability analyses are run with the sub-sections of each test not the single item scores.

In a bid to gauge the reliability of the interview questions, two language experts having PhD degree in TEFL were requested to evaluate the relevance and appropriateness of the questions through a short interview session. The amount of consistency and agreement in the experts' responses was measured and considered as the yardstick for the reliability. As pinpointed by Ary et al. (2010), the more consistent the responses, the higher is the reliability.

3.2 Inferential statistics

3.2.1 Research question 1

RQ1: Does the ENGAGE Model have any statistically significant effect on the writing development of cognitively less active EFL learners?

TABLE 5 Descriptive statistics; inter-rater reliability correlations.

		Pre-test writing rater 1		Pre-test writing rater 2	
Pre-test writing rater 1	Pearson Correlation	1	0.798		
	Sig. (2-tailed)		0.000		
	N	60	60		
		Post-test writing rater 1		Post-test writing rater 2	
Post-test writing rater 1	Pearson Correlation	1	0.928		
	Sig. (2-tailed)		0.000		
	N	60	60		

TABLE 6 Pearson correlations; pre-and post writing tests.

		Post-writing	
Pre-writing	Pearson Correlation Sig. (2-tailed)N	0.426	
		0.001	
		60	

TABLE 7 Internal consistency; reliability analysis of tests.

Test name	N of items	Cronbach's alpha estimate
Pre-test writing	4	0.878
Post-test writing	4	0.958

3.2.2 Research question 2

RQ2: Does the ENGAGE Model have any statistically significant effect on the writing development of cognitively more active EFL learners?

Hypothesis Test Summary tables show that sig value <0.05. The size of significance value indicate that this finding is very important. The Tables 8, 9 show that all ranked participants in the groups have made gains from the pre-test to the post-test.

3.2.3 RQ3: Do cognitively more and less active EFL learners differ significantly in their writing performance in response to being taught with the TBLT or the ENGAGE Model?

To address the above research questions and its concomitant research variables, the researchers could have run a Two-way ANOVA.

Table 10 shows descriptive statistics pertaining to the writing pre-test. Likewise, Table 11 shows the results of the Two-way ANOVA conducted to investigate the possible initial difference in the participants' pre-test of writing ability.

At the pre-test stage, participants differed significantly in group membership for writing ability ($F = 7.80, df = 1, p < 0.001$), but not in cognitive level ($p = 0.144$). Interestingly, cognitively less active participants initially scored higher in the ENGAGE Model group but similarly in the TBLT group. To address initial differences, researchers conducted Two-way ANCOVAs. Assumptions were

TABLE 8 Hypothesis one, results of Wilcoxon signed-rank test.

	Test	Sig.
Group = ENGAGE, Cognitive Level= Less Active	Related examples: Wilcoxon Signified Rank Test	0.002

TABLE 9 Hypothesis two, results of Wilcoxon signed-rank test.

	Test	Sig.
Group = ENGAGE, Cognitive Level = More Active	Related examples: Wilcoxon Signified Rank Test	0.000

TABLE 10 Descriptive statistics of writing pre-test as the dependent variable.

Group	Cognitive level	Mean	Std. Deviation	N
ENGAGE	Less	25.06	2.854	18
	More	22.29	4.048	12
	Total	23.95	3.590	30
TBLT	Less	21.21	1.738	12
	More	21.53	3.406	18
	Total	21.40	2.824	30
Total	Less	23.52	3.098	30
	More	21.83	3.628	30
	Total	22.68	3.450	60

checked using One-way ANOVAs, with results presented in Table 12.

Based on the results of Tables 10–18, it is vivid that group membership has been the driving force of change between two groups. A simple comparison of the means indicates that the mean of the ENGAGE Model group is enormously higher than the mean of the TBLT group (44.55 vs. 28.60) in the writing post-test. Cognitive level, however, has not been very influential in this regard. The means of the groups are 35.86 and 37.28 which are only slightly different from each other to the advantage of the cognitively more active students.

3.3 RQ 4 What are the perspectives of cognitively more and less active EFL learners on employing the ENGAGE Model in the EFL classroom?

The fourth research question was a descriptive question as follows:

An interview guide was used to collect qualitative data to answer this question. The instrument was used to elicit the perspectives of cognitively more and less active EFL learners about the ENGAGE Model in the classrooms in which it was employed. The interview was a face-to-face semi-structured interview involving 10 randomly selected participants. Of the

TABLE 11 Tests of between-subjects effects; writing pre-test as the dependent variable.

Source	Type III sum of squares	df	Mean square	F	Sig.
Corrected model	153.274 ^a	3	51.091	5.210	0.003
Intercept	29214.025	1	29214.025	2979.183	0.000
Group	76.544	1	76.544	7.806	0.007
Cognitive level	21.511	1	21.511	2.194	0.144
Group	34.225	1	34.225	3.490	0.067
Cognitive level					
Error	549.139	56	9.806		
Total	31551.750	60			
Corrected total	702.413	59			

^a R Squared = 0.218 (Adjusted R Squared = 0.176).

TABLE 12 ANOVA; Independence of the treatment variable and covariate cognitive level; writing pre-test.

		Sum of Squares	df	Mean Square	F	Sig.
Group	Between groups	7.017	24	0.292	1.282	0.247
	Within groups	7.983	35	0.228		
	Total	15.000	59			
Cognitive level	Between groups	7.383	24	0.308	1.414	0.172
	Within groups	7.617	35	0.218		
	Total	15.000	59			

TABLE 13 Between-subjects factors; writing post-test.

		Value label	N
Group	1	ENGAGE	30
	2	TBLT	30
Cognitive level	1	Less	30
	2	More	30

TABLE 14 Descriptive statistics; writing post-test as a dependent variable.

Group	Cognitive level	Mean	Std. Deviation	N
ENGAGE	Less	44.78	4.936	18
	More	45.08	5.958	12
	Total	44.90	5.269	30
TBLT	Less	27.29	3.388	12
	More	28.89	5.449	18
	Total	28.25	4.732	30
Total	Less	37.78	9.723	30
	More	35.37	9.797	30
	Total	36.58	9.754	60

10 participants 5 were cognitively more active and 5 cognitively less active individuals based on the results of the cognitive profile questionnaire (Table 19).

3.3.1 Positive learning environment

Participants, both cognitively more and less active, generally expressed a positive sentiment regarding the classroom

TABLE 15 Levene’s test of equality of error variances; Writing post-test.

F	df1	df2	Sig.
1.373	3	56	0.260

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.
Design: Intercept + Writing Pre-test + Group + Cognitive Level + Group Cognitive Level.

atmosphere. The majority highlighted that the class was perceived as friendly, creating a comfortable and relaxed learning environment.

Participant Quote: “We felt at ease as the class was very friendly.”

3.3.2 Energetic teaching approach

All participants acknowledged the teacher’s energetic approach, especially in the initial stages of the class. This energy was identified as a motivating factor for learning. However, cognitively less active learners showed a slightly lower percentage in agreement, suggesting varied responses to the teaching style.

Participant Quote: “The teacher was energetic, and through energizing the students at the beginning of any classroom session, he motivated us to learn more.”

3.3.3 Engaging experiences

The inclusion of students’ personal experiences in the classroom discussions was unanimously considered interesting and engaging by all participants. This aspect contributed to a sense of connection with the subject matter.

Participant Quote: “Sometimes the students talked about their experiences which was really interesting, and we did not feel we were in the class.”

TABLE 16 Tests of between-subjects effects; writing post-test as a dependent variable.

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	4259.421 ^a	4	1064.855	43.271	0.000	0.759
Intercept	821.651	1	821.651	33.388	0.000	0.378
Pre-test writing	82.043	1	82.043	3.334	0.073	0.057
Group	3214.870	1	3214.870	130.638	0.000	0.704
Cognitive level	28.092	1	28.092	1.142	0.290	0.020
Group	0.034	1	0.034	0.001	0.971	0.000
Cognitive level						
Error	1353.492	55	24.609			
Total	85876.750	60				
Corrected total	5612.912	59				

^aR Squared = 0.759 (Adjusted R Squared = 0.741).

3.3.4 Active student involvement

Participants appreciated the high level of participation, with all students actively involved in classroom activities. This inclusivity was seen as a positive aspect of the ENGAGE Model.

Participant Quote: “It was interesting as almost all the students were involved in the classroom activities.”

3.3.5 Reading requirements

A unanimous viewpoint among participants was the necessity for extensive reading outside the classroom. This requirement was seen as essential for meaningful participation and contributions to class discussions.

Participant Quote: “We had to read a lot even outside the classroom to be well-prepared and play a significant role in the classroom discussions.”

3.3.6 Value of cognitive techniques

The use of cognitive techniques, such as think aloud protocols and brainstorming, was unanimously perceived as valuable by all participants. These techniques were seen as fostering critical thinking and expanding understanding.

Participant Quote: “The think-aloud protocols and brainstorming techniques we used were really valuable as we could think of various dimensions of an issue.”

3.3.7 Holistic learning

Participants, across both cognitive profiles, recognized that the ENGAGE Model not only improved their English language skills but also enhanced their understanding of the world around them. This holistic approach to learning was appreciated.

Participant Quote: “Not only could we improve our English but also our understanding of the world around.”

3.3.8 Divergent views on boredom

Interestingly, cognitively less active learners found the class boring. This perception was linked to the extensive external study required. In contrast, cognitively more active learners did not share this sentiment, possibly indicating a difference in how the two groups approached the learning material.

TABLE 17 Covariates of writing post-test by groups.

Group	Mean	Std. Error	Lower bound	Upper bound
95% Confidence interval				
ENGAGE	44.545 ^a	0.948	42.644	46.445
TBLT	28.595 ^a	0.965	26.662	30.529

^aCovariates appearing in the model are evaluated at the following values: Writing Pre-test = 22.68.

TABLE 18 Covariates of writing post-test by cognitive level.

Cognitive level	Mean	Std. Error	Lower bound	Upper bound
95% Confidence interval				
Less	35.858	0.929	33.995	37.721
More	37.282	0.938	35.401	39.163

Participant Quote (Cognitively Less Active): “The class was boring, and we had to study a lot of material outside the book.”

4 Discussion

The analysis reveals a statistically significant effect of the ENGAGE Model on the writing development of both cognitively more and less active EFL learners. This finding resonates with previous research, such as Hodge et al. (2009), who advocate for the model’s ability to promote autonomous and active learning. Theoretical frameworks, like cognitive learning assumptions of modularity (Chomsky, 1979; Fodor, 1983), suggest that the diverse cognitive orientations of learners can effectively benefit from such instructional approaches. Surprisingly, both cognitively more and less active learners exhibit improvement in L2 writing when exposed to the ENGAGE Model. Theoretically, this finding aligns with the idea that cognitive diversity does not hinder language learning, as suggested by previous studies (Coltheart, 2001). The model’s effectiveness in engaging learners regardless of their cognitive profiles underscores its versatility and inclusivity.

TABLE 19 Thematic analysis.

Theme	Sub-Themes	Descriptions
Positive learning environment	Welcoming atmosphere Comfortable setting	Participants universally acknowledged a friendly and comfortable classroom environment, contributing to a positive learning experience.
Energetic teaching approach		The energetic teaching approach, marked by the teacher's enthusiasm, was cited as a motivating factor for learning. Participants noted the impact of energizing activities at the beginning of each session.
Engaging experiences	Personal sharing Connection with subject	Engaging experiences, particularly instances where students shared personal stories, were highlighted as interesting and contributing to an immersive classroom atmosphere.
Active student involvement	Participation levels Inclusive learning	The high level of student involvement in classroom activities was perceived positively, creating an inclusive learning environment.
Reading requirements	External reading Preparation for discussions	External reading was identified as a necessary component for effective participation in classroom discussions, emphasizing the importance of preparation.
Value of cognitive techniques	Think-loud protocols Enhancing critical thinking	The application of think-aloud protocols and brainstorming techniques was perceived as valuable for enhancing critical thinking skills and exploring various dimensions of issues.
Holistic learning	Language improvement Broader understanding	Participants recognized the holistic nature of learning through the ENGAGE Model, highlighting improvements in both English language proficiency and a broader understanding of the world.
Divergent views on boredom	Boredom perception Extensive study burden	Cognitively less active learners expressed a perception of boredom, attributing it to an extensive workload and study requirements outside the standard curriculum.

The ENGAGE Model's multidimensional approach contributes to scholarship development among students, as noted in prior research (Halsey, 2016). This suggests that by engaging learners in various problem-solving aspects, the model fosters a deeper understanding and application of knowledge. The findings support the notion that active engagement leads to richer learning experiences.

Additionally, the ENGAGE Model's success extends beyond traditional educational contexts, as seen in its application to environmental education (Halsey and Halsey, 2017). This highlights the model's adaptability and effectiveness in promoting engagement across diverse domains. Comparatively, these findings echo the benefits observed by Kojuri et al. (2015) in terms of active engagement's positive impact on educational scholarship, indicating a consistent pattern across different fields. Insights from Zhang and Hyland (2018) research emphasize the pivotal role of feedback in language learning. Corrective feedback prompts learners to focus on and rectify errors, thereby enhancing their writing proficiency. This finding aligns with broader literature on feedback in educational contexts, reinforcing the importance of tailored instructional strategies.

The study's second major finding reveals that the ENGAGE group outperformed the TBLT group in terms of L2 writing, regardless of their cognitive activity levels. While this marks the first application of the ENGAGE Model in the L2 classroom, its success prompts exploration of its implications across disciplines. Theoretical frameworks such as metacognitive strategies (Oxford, 1989; Novak, 1990) suggest that prioritizing teaching methodologies over content delivery, as emphasized by Kilbourne (2011), may contribute to the ENGAGE group's superior performance. Kilbourne's adaptation of the ENGAGE Model for safety training underscores the importance of strategic teaching

approaches. This aligns with the study's findings, indicating that preplanning activities before instruction significantly impact learning outcomes. The shift from content-focused to methodology-focused teaching, advocated by Kilbourne, offers insights into the ENGAGE Model's effectiveness beyond the realm of language instruction.

Halsey et al. (2018) highlight the ENGAGE Model's educational benefits, rooted in neuroscience discoveries. By stimulating active learning and enhancing retention, the model underscores the role of cognitive and metacognitive strategies in learning processes. This resonates with the present study's findings, suggesting that learners' cognitive and metacognitive engagement may influence their L2 writing development. Rundel (2018) advocates for integrating ecosystem issues into educational curricula to enhance students' awareness of global challenges. This perspective aligns with the present study's implications, suggesting that the ENGAGE Model fosters deeper engagement with subject matter. By connecting language learning to real-world contexts, learners not only improve their language skills but also develop critical thinking and global awareness.

The success of the ENGAGE Model in the present study is supported by Kim et al.'s (2017) research on its impact in nursing practices. Their study found that improvements in evidence-based practice (EBP) beliefs directly influenced job satisfaction among participants. Similarly, in our study, L2 learners likely benefited from connecting their learning to real-life situations, enhancing their engagement and proficiency. The mention of a "friendly" and "comfortable" classroom atmosphere aligns with literature emphasizing the importance of a positive learning environment (McCarthy et al., 2014). This echoes the idea that learners thrive when they feel at ease, which facilitates language acquisition. The energetic teaching approach highlighted in the study, characterized

by the teacher's enthusiasm and energizing activities, resonates with principles of active learning (Halsey, 2011). The emphasis on engaging experiences, such as personal sharing and connections with real-life subjects, aligns with principles of Communicative Language Teaching (Hedge, 1993). Authentic communication and personal relevance contribute to meaningful language learning experiences. This finding is consistent with previous research demonstrating the effectiveness of communicative approaches in language instruction (Richards and Rodgers, 2001).

The acknowledgment of the necessity for external reading and the recognition of the value of cognitive techniques, such as think-aloud protocols and brainstorming, support literature emphasizing the role of metacognitive strategies in language learning (Oxford, 1989). This aligns with research demonstrating the positive impact of metacognitive strategies on language acquisition (Flavell, 1979). The development of teaching models such as LEE for clinical skills in helping professions, inspired by the ENGAGE Model, underscores its potential efficacy in diverse educational contexts (Glance et al., 2018). This highlights the adaptability and versatility of the ENGAGE Model, suggesting its applicability beyond language instruction.

5 Conclusion

The present study demonstrated that employing the ENGAGE Model could influence the EFL learners' writing performance though the cognitively more active learners benefited more from this model than cognitively less active learners. EFL learners need to engage in active and autonomous learning. Therefore, inspired by the results of the current study, some practical implications for teaching and learning in the EFL context through employing the ENGAGE Model can be suggested. In other words, the data gathered from the learners who participated in the current study have pedagogical implications for employing active learning models in the EFL context. Thus, the conclusions that can be drawn from this research can assist other teachers and researchers who are considering the use of the ENGAGE Model to enhance their course learning outcomes. The idea that a number of students still have a preference for less active models does not make much sense and suggests that teachers, syllabus designers, and researchers have to employ more active models such as the ENGAGE Model and investigate the way they will assist and improve students' learning.

The findings of this study showed that the use of the ENGAGE Model is paramount in comparison to TBLT amongst EFL learners if teachers decide to enhance learning outcomes. Also, the data revealed that cognitively more and less active learners liked the ENGAGE Model classroom and they highlighted that the knowledge and information they received were more than what they had received in ordinary classrooms. Another significant implication was that learners felt highly motivated and could connect classroom learning to extracurricular activities.

Syllabus designers might use the findings of this study and pay attention that the ENGAGE Model's purpose is to immerse learners in new ideas and can act as an excellent gateway for improving quality content. It is suggested that EFL teachers

and stakeholders should increase interaction and higher-order thinking, and make connections to learners' previous learning. All of these components need for new models of English language teaching and learning.

Materials developers in the ELT domain also could employ the findings of the present study and those of the similar ones to present tasks in which learners' awareness toward active learning is enhanced. Such tasks may help the learners move toward self-assessment, autonomy, and meaningful learning.

According to Selinger and Shohamy (1989, p. 245), "the nature of research is such that the more answers are obtained, the more question arise. Curiosity in second language acquisition, as in other disciplines, leads researchers to more problems, more questions, and more areas of research." Since research is an ongoing activity that is only partially completed, each piece raises additional questions for more research. Consequently, other questions in this area need further investigation. The following suggestions provide several topics that can guide further studies in the future.

1. The same hypotheses can be formulated for Iranian language learners at different levels of language proficiency. It is worth investigating whether providing learners at various proficiency levels with the ENGAGE Model has the same effects on the learners' general writing performance or not.

1. Future studies might consider examining the effects of the ENGAGE Model to explore whether and how long-lasting these effects actually could be. A semi-longitudinal study of the ENGAGE Model on a specific group of learners can reveal the mechanisms by which activities in this model activate active learning strategies and reinforce students' learning.
2. In addition, the present study employed the ENGAGE Model focusing on the foreign language writing performance. Future studies may be needed to replicate the findings with other language skills or components.
3. Further research is recommended to explore the role of the ENGAGE Model on male learners as they are more willing to participate in active learning practices.
4. The individual differences of students were not controlled completely in this research. The researcher had to assume that no significant difference existed between the participants in different age groups in this study, nor did a significant difference exist between participants with different familial or social backgrounds. Specific learner characteristics can be taken into consideration in another study of the same type with a bigger size to present more generalizable results and findings. In the present study, only 60 homogeneous participants could be selected to take part in the investigation. So, it is highly recommended that the same research study with a large pool of participants is designed for EFL learners.

The exploration of the ENGAGE Model in an English as a Foreign Language (EFL) classroom setting, involving 60 advanced level male students, has yielded valuable insights into the multifaceted dynamics of language learning. The study incorporated a mix of quantitative and qualitative methods, utilizing a diverse array of instruments and materials, including the Preliminary English Test (PET), cognitive profile questionnaire, pre-tests, post-tests, and interviews.

The findings from the study offer a nuanced understanding of the impact of the ENGAGE Model on EFL learners, emphasizing both positive outcomes and challenges. The qualitative analysis, derived from interviews with cognitively more and less active learners, reveals several themes that contribute to the broader discourse on effective language teaching methodologies.

The positive and friendly atmosphere in the ENGAGE Model classroom emerged as a consistent theme. This aligns with research highlighting the importance of a supportive environment for effective language acquisition. The energetic teaching approach, characterized by the teacher's enthusiasm and motivational strategies, correlates with established principles of active learning. This underscores the role of teacher dynamics in shaping the learning experience. The emphasis on engaging experiences, including personal sharing and connections with real-life subjects, reflects the principles of Communicative Language Teaching. Authentic and meaningful interactions contribute to enhanced language learning.

The positive perception of high student involvement underscores the participatory nature of the ENGAGE Model. This aligns with contemporary pedagogical trends that advocate for interactive and inclusive learning environments. Recognition of the value of cognitive techniques, such as think-aloud protocols and brainstorming, indicates a cognitively stimulating aspect of the ENGAGE Model. Moreover, the awareness of holistic learning outcomes, encompassing both language improvement and a broader understanding of the world, aligns with the model's comprehensive approach. The divergence in perspectives on boredom, particularly expressed by cognitively less active learners, underscores the importance of addressing individual learning needs. This suggests the necessity for differentiated instructional strategies within the ENGAGE Model.

The study acknowledges that individual differences among students, such as age, familial or social backgrounds, and other specific characteristics, were not entirely controlled in the research. This lack of control introduces potential confounding variables that could influence the study's outcomes. Future studies should aim for a more comprehensive control of individual differences to provide more robust and generalizable results.

The study specifically focused on 60 advanced level male students. This narrow gender focus limits the generalizability of the findings, as the experiences and responses of female EFL learners may differ significantly. To draw more comprehensive conclusions, future research should strive for a more balanced and inclusive representation of genders.

To sum up, a replication of the present study is needed to investigate the effect of employing the ENGAGE Model on other skills or sub skills of language. If the results of this study are supported by further research in the EFL domain, then it can safely be argued that the ENGAGE Model is of great use and importance in the process of writing development of the EFL learners.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

Ethical approval was not required for the studies involving humans because the participation in the study was voluntary, and informed consent was provided prior to the commencement of the assignment. The anonymity of the participants was maintained throughout the study. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

AN: Investigation, Methodology, Software, Writing – original draft, Writing – review & editing. MN: Methodology, Software, Writing – original draft, Writing – review & editing. FA: Conceptualization, Data curation, Investigation, Methodology, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

Funding

The author(s) declare that no financial support was received for the research, authorship, and/or publication of this article.

Acknowledgments

We are grateful to the participants who participated in this study.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References

- Ahmad, D. (2022). Examining the skill in writing descriptive text among Indonesian learners of English: the effects of task-based language teaching (TBLT). *J. Lang. Teach. Res.* 13, 46–57.
- Albino, G. (2017). Improving speaking fluency in a task-based language teaching approach: the case of EFL learners at PUNIV-Cazenga. *SAGE Open* 7, 1–11.
- Ary, D., Jacobs, L. C., and Sorensen, C. (2010). *Introduction to Research in Education*. Wadsworth: Cengage Learning.
- Asaoka, C. (2019). *Early Professional Development in EFL Teaching*. Bristol: Multilingual Matters.
- Bachman, L., and Damböck, B. (2018). *Language Assessment for Classroom Teachers*. Oxford: Oxford University Press.
- Bachman, L. F., and Palmer, A. S. (1996). *Language Testing in Practice*. Oxford: Oxford University Press.
- Baker, F. S. (2015). Emerging realities of text-to-speech software for nonnative-english-speaking community college students in the freshman year. *Community Coll. J. Res. Pract.* 39, 423–441.
- Borg, S., and Alshumaimeri, A. (2019). Language learner autonomy in a tertiary context: teachers' beliefs and practices. *Lang. Teach. Res.* 23, 9–38.
- Byrnes, H., and Manchón, R. M. (2014). *Task-based Language Learning- Insights From and for L2 Writing*, Vol. 7. Amsterdam: John Benjamins Publishing Company.
- Celce-Murcia, M. (2001). Language teaching approaches: an overview. *Teach. Engl. a Sec. Foreign Lang.* 2, 3–10.
- Chastain, K. (1988). *Developing Second-Language Skills: Theory and Practice*. Orlando: Harcourt Brace Janovich Publishers.
- Chomsky, N. (1979). *Language and Responsibility*. New York: Pantheon.
- Coltheart, M. (2001). "Assumptions and methods in cognitive neuropsychology," in *The Handbook of Cognitive Neuropsychology: What Deficits Reveal About the Human Mind*, ed. B. Rapp (New York: Psychology Press), 3–21.
- Creswell, J. W., and Clark, V. L. P. (2017). *Designing and Conducting Mixed Methods Research*. London: Sage publications.
- Day, R. R., Bamford, J., Renandya, W. A., Jacobs, G. M., and Yu, V. W. S. (1998). Extensive reading in the second language classroom. *RELC J.* 29, 187–191. doi: 10.1007/s10936-022-09882-8
- Ellis, R. W. (2003). *Task-Based Language Teaching and Learning*. Oxford: Oxford University Press.
- Ellis, R. W. (2005). *Planning and Task Performance in a Second Language*. Philadelphia: John Benjamins B.V.
- Ellis, R. W. (2008). *The Study of Second Language Acquisition*, 2nd Edn. Oxford: Oxford University Press.
- Ellis, R. W. (2009). Task-based language teaching: sorting out the misunderstanding. *Int. J. Appl. Linguistics* 19, 221–246.
- Ellis, R. W., Skehan, P., Li, S., Shintani, N., and Lambert, C. (2019). *Task-Based Language Teaching: Theory and Practice*. Cambridge: Cambridge University Press.
- Erlam, R., and Ellis, R. (2018). Input-based tasks for beginner-level learners: an approximate replication and extension of Erlam and Ellis (2018). *Lang. Teach.* 2, 1–22.
- Esлами, Z. R., Mirzaei, A., and Dini, S. (2015). The role of asynchronous computer mediated communication in the instruction and development of EFL learners' pragmatic competence. *System* 48, 99–111.
- Faridi, A., Saleh, M., and Fitriati, S. (2020). The effect of hybrid task-based language teaching and critical thinking on writing performance in Indonesia. *New Educ. Rev.* 61, 109–118.
- Feez, S., and Joyce, H. D. S. (1998). *Text-Based Syllabus Design*. Sydney: Macquarie University.
- Flavell, J. (1979). Theories of learning in educational psychology. *Am. Psychol.* 34, 906–911.
- Fodor, J. A. (1983). *The Modularity of Mind*. New York: MIT press.
- Ghanizadeh, A., Razavi, A., and Hosseini, A. (2018). TELL (technology-enhanced language learning) in Iranian high schools: a Panacea for emotional and motivational detriments. *Int. J. Appl. Linguistics English Literature* 7, 92–100.
- Gilakjani, A. P. (2012). The significant role of multimedia in motivating EFL learners' interest in english language learning. *Int. J. Modern Educ. Comput. Sci.* 4, 57–66.
- Glance, D., Rhinehart, A., and Brown, A. (2018). Learn, expand, engage: a model for teaching clinical skills in the helping professions. *Adult Learn.* 29, 104–114.
- Halsey, R. W. (2016). *The First ten Things I Learned in the Wilderness. Stop Talking at Me*. Escondido, CA: California Chaparral Institute
- Halsey, R. W., Halsey, V. W., and Gaudette, R. (2018). "Connecting Californians with the chaparral," in *Valuing Chaparral*, eds E. C. Underwood, H. D. Safford, N. A. Molinari, and J. E. Keeley (Berlin: Springer), 295–322. doi: 10.1371/journal.pone.0250290
- Halsey, V. W. (2011). *Brilliance by Design*. San Francisco: Berrett-Koehler Publishers, Inc.
- Halsey, V. W., and Halsey, R. W. (2017). *Connecting Californians with the Chaparral Through the ENGAGE Model*. Escondido, CA: California Chaparral Institute
- Hedge, T. (1993). Key concepts in ELT. *ELT J.* 47, 275–277.
- Hodge, D. C., Baxter Magolda, M. B., and Haynes, C. A. (2009). Engaged learning: enabling self-authorship and effective practice. *Liberal Educ.* 95, 16–23.
- Howatt, A. P. R., and Widdowson, H. G. (2004). *A History of ELT*. Oxford: Oxford University Press.
- Hughes, A. (1989). *Testing for Language Teachers*. Cambridge: Cambridge University Press.
- Hughes, R. (2013). *Teaching and Researching: Speaking*. London: Routledge.
- Jassem, Z. A. (1997). Towards better speaking in the English class: a sociolinguistic approach. *English Teach.* XXIV, 41–52.
- Jordan, A., Carlile, O., and Stack, A. (2008). *Approaches to Learning: a Guide for Teachers: a Guide for Educators*. London: McGraw-Hill Education.
- Kilbourne, C. (2011). *Connect, Inspire, and ENGAGE: a Model for Improving Safety Training*. Available Online at: <https://ehsdailyadvisor.blr.com> (accessed 2 September, 2019).
- Kim, J., and Craig, D. A. (2012). Validation of a video-conferenced speaking test. *Comput. Assisted Lang. Learn.* 25, 257–275.
- Kim, S. (2014). Developing autonomous learning for oral proficiency using digital storytelling. *Lang. Learn. Technol.* 18, 20–35.
- Kim, S. C., Ecoff, L., Brown, C. E., Gallo, A. M., Stichler, J. F., and Davidson, J. E. (2017). Benefits of a regional evidence-based practice fellowship program: a test of the ARCC Model. *Worldviews Evid. Based Nurs.* 14, 90–98. doi: 10.1111/wvn.12199
- Kojuri, J., Takmil, F., Amini, M., and Nabeiei, P. (2015). The use of Q2 engage model (EQ2) for educational scholarship in Shiraz University of Medical Sciences (SUMS). *Med. Teach.* 37, 885–886. doi: 10.3109/0142159X.2014.1001348
- Kozulin, A. (2002). Sociocultural theory and the mediated learning experience. *School Psychol. Int.* 6, 125–136.
- Krejcie, R. V., and Morgan, D. W. (1970). Determining sample size for research activities. *Educ. Psychol. Measure.* 30, 607–610. doi: 10.1177/001316447003000308
- Kung, F. W. (2013). The more the merrier? Bilingualism in an academic perspective: exploring the implementation of English-medium instruction in Taiwanese tertiary education. *Asian EFL J.* 15, 8–36.
- Leahy, W., and Sweller, J. (2016). Cognitive load theory and the effects of transient information on the modality effect. *Instruct. Sci.* 44, 107–123.
- Mackey, A., and Gass, S. M. (2005). *Second Language Research Methodology and Design*. New Jersey: Lawrence Erlbaum Associates.
- McCarthy, M., McCarten, J., and Sandiford, H. (2014). *Touchstone Level 4 Full Contact*, Vol. 4. Cambridge: Cambridge University Press.
- Murphy, R. S. (2019). *EFL Course Book Innovation: the Dynamics of L2 Maturity, Student Engagement, and Cognitive Development*. Ph.D. thesis. England: University of Nottingham.
- Nitta, R., and Baba, K. (2014). "Task repetition and L2 writing development," in *Task-Based Language Learning: Insights From and For L2 Writing*, eds H. Byrnes and R. M. Manchón (Philadelphia, PA: John Benjamin Publishing Company), 107–118.
- Novak, J. D. (1990). Concept maps and Vee diagrams: two metacognitive tools to facilitate meaningful learning. *Instruct. Sci.* 19, 29–52.
- Oxford, R. L. (1989). Use of language learning strategies: a synthesis of studies with implications for strategy training. *System* 17, 235–247. doi: 10.1016/0346-251X(89)90036-5
- Pham, V. P. H., and Do, T. H. (2021). The Impacts of task-based instruction on students' grammatical performances in speaking and writing skills: a quasi-experimental study. *Int. J. Instruction* 14, 969–986.
- Prabhu, N. S. (1987). *Second language pedagogy*. Oxford: Oxford University Press.
- Richards, J. C., and Rodgers, T. S. (2001). *Approaches and Methods in Language Teaching*. Cambridge: Cambridge University Press.
- Robillos, R. J. (2021). Learners' writing skill and self-regulation of learning awareness using computer-assisted argument mapping (CAAM). *J. Teach. English Technol.* 21, 76–93.
- Robillos, R. J. (2022). Impact of loiloonote digital mapping on university students' oral presentation skills and critical thinking dispositions. *Int. J. Instruction* 15, 501–518.

- Robillos, R. J. (2023). Improving students' speaking performance and communication engagement through technology-mediated pedagogical approach. *Int. J. Instruction* 16, 551–572.
- Robillos, R. J., and Thongpai, J. (2022). Computer-aided argument mapping within metacognitive approach: its impact on students' argumentative writing performance and self-regulated learning. *Learn. J. Lang. Educ. Acquisition Res. Netw.* 15, 160–186.
- Rosenberg, M. J., and Abelson, R. P. (2017). "Symbolic psycho-logic: a model of attitudinal cognition," in *Attitude Change*, ed. A. Pelinka (London: Routledge), 86–115.
- Rundel, P. W. (2018). "California chaparral and its global significance," in *Valuing Chaparral*, eds E. C. Underwood, H. D. Safford, N. A. Molinari, and J. E. Keeley (Berlin: Springer), 1–27.
- Sadeghi, B., and Maleki, M. (2015). Improving the ability of writing argumentative essays of Iranian EFL learners by raising awareness of rhetoric transfer. *Cumhuriyet Sci. J.* 36, 1541–1559.
- Saslow, J., and Ascher, A. (2006). *Top Notch Series: English for Today's World*, 3rd Edn. White Plains, NY: Pearson Education.
- Selinger, H., and Shohamy, E. (1989). *Second Language Research Methods*. Oxford: Oxford University Press.
- Storch, N. (2013). *Collaborative Writing in L2 Classrooms*, Vol. 31. London: Multilingual Matters.
- Sundari, H., Febriyanti, R. H., and Saragih, G. (2018). Using task-based materials in teaching writing for EFL classes in Indonesia. *Int. J. Appl. Linguistics Engl. Literature* 7, 119–124.
- Toro, V., Camacho-Minuche, G., Pinza-Tapia, E., and Paredes, F. (2020). The use of the communicative language teaching approach to improve students'. *Oral Skills. Engl. Lang. Teach.* 12, 110–118.
- Vellanki, S. S., and Bandu, S. (2021). Engaging students online with technology-mediated task-based language teaching. *Arab World Engl. J. Special Issue Covid-19*, 107–126.
- Wang, Y. C. (2022). Implementing technology-mediated task-based language teaching in an EFL writing course. *Int. J. Comput. Assisted Lang. Learn. Teach.* 12, 1–15.
- White, R. V. (1988). *The ELT Curriculum: Design, Innovation and Management*. Oxford: Basil Blackwell.
- Yim, S., and Warschauer, M. (2017). Web-based collaborative writing in L2 contexts: methodological insights from text mining. *Lang. Learn. Technol.* 21, 146–165.
- Zhang, X., Meng, Y., Ordóñez de Pablos, P., and Sun, Y. (2019). Learning analytics in collaborative learning supported by slack: from the perspective of engagement. *Comput. Hum. Behav.* 92, 625–633.
- Zhang, Z. V., and Hyland, K. (2018). Student engagement with teacher and automated feedback on L2 writing. *Assessing Writ.* 36, 90–102.