Research Article

The impact of systematic guided meditation on writing self-efficacy, achievement, and perceptions: A quasi-experimental investigation focusing on breathing, music, and monolingual affirmations

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Abstract: Responding to the recent calls to investigate the impact of guided meditation practices for foreign language classrooms with rigorous research designs, the current research with a pre-test-post-test research design empowered with qualitative data investigated the impact of a classroom-based systematic guided meditation on the participants' writing self-efficacy, academic performance, and perceptions. The total sample was 69 pre-service English teachers with Turkish origin randomly assigned into one experimental group exposed to sessions with background relaxing music, one experimental group exposed to the treatment with sole human voice, and one control group without any meditation practice. The statistical analysis of pre and post-test scores did not reveal significant variations. However, yielding more comprehensive insights, the one-to-one interview data support the conclusion that these affirmations enhanced their self-efficacy for self-regulation. The analysis revealed consistent patterns, including feeling at ease, experiencing a boost in self-assurance through affirmations, and being more driven to engage in writing activities. Nevertheless, this drive's sustainability and long-term effects rely on its consistent implementation and personal endeavor. Practical implications are offered in the end to help learners be aware of their own minds and the moment.

Keywords: guided meditation, self-efficacy, writing, positive psychology, mindfulness

1 Introduction

In today's contemporary world, almost all are concerned about the lack of human connections. The picture becomes darker due to the diverse societal and individual negativities in modern times that hamper healthy social-emotional development, including wars, illnesses, environmental problems, the fast pace of technology, technological dependence as well as social and academic failings, insecurity about physical appearance, preoccupations with what lies ahead, to list but a few (Jenkins, 2015). However, to survive in such a context, individuals "need to slow down a bit and pay attention" (Siegel, 2014, pp. 17-18), which is difficult in the fast-paced information-driven world. Still, they need to do so to be aware of their own mind

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and the moment, i.e., mindfulness, to transform their lives, thereby having healthy interactions with others (Siegel, 2007).

Mindfulness needs to be understood as the "awareness of present experience with acceptance", which has been used to deal with psychological negativities and problems effectively, thereby contributing to emotional well-being for more than 2,500 years (Siegel, 2014, p. 1). Related practices are forms of contemplative pedagogy that encourage individuals "to focus internally and find more of themselves" (Barbezat & Bush, 2014, p. 9). Those activities put individuals at the center and offer opportunities "to cultivate attention, deepen their understanding of their studies, engender richer relationships with themselves and others, and stimulate profound inquiries into the nature of themselves and the world around them" (p. 20). They have been documented to alleviate various "psychological difficulties, including anxiety, depression, stress-related medical problems, addictions, eating disorders, interpersonal problems, and the challenges of aging" (Siegel, 2014, p. 1). Furthermore, mindfulness-oriented practices are reported to bring about various positive outcomes about general learning as well as foreign language learning: enhancing short-term retention of newly acquired vocabulary (Zeilhofer & Sasao, 2022); lowering English speaking anxiety that negatively impacts foreign language performance due to the fear of making mistakes and getting evaluated by peers (Rahman & Syafei, 2019); reducing language learning apprehension and enhancing vocabulary learning performance (Önem, 2015); increasing foreign language learning awareness (Zeilhofer, 2023); enhancing psychological well-being (Kimble, 2019); contributing to the creation of a relaxed learning environment conducive to learning, thereby enhancing self-confidence as well as academic performance (Cai, 2017); increasing trait mindfulness as well as decreasing psychological negative outcomes such as depression, anxiety, and stress (Strohmaier et al., 2021); decreasing writing apprehension and improving written products by decreasing mechanical errors (Britt et al., 2018); developing positive writer identity, enhancing self-reflection and creativity, and resulting in learning joy (Woloshyn et al., 2022). Responding to the recent calls to investigate the impact of mindfulness-oriented practices in educational settings with rigorous research designs (Roeser, 2014; Taylor et al., 2016), the current research with a pre-test-post-test research design empowered with qualitative data investigated the impact of a classroom-based systematic guided meditation series of sessions on the participants' writing self-efficacy, academic performance, and perceptions.

1.1 Theoretical framework

The study is grounded in basically three theories, including Positive Psychology, Mindfulness-Based Stress Reduction (MBSR), the self-efficacy component of Bandura's (1997) Social Cognitive Theory. The first pillar Positive Psychology comes out as a criticism towards scientific psychology, which has adopted "a disease model of human nature" (Peterson, 2006, p. 5), thereby seeing people as fragile individuals who try to survive diverse negativities. However, positive psychologists argue good things rather than solely negative things need to be paid attention, for they are also realities, and thus positive psychology studies "what we are doing when we are not frittering life away" (Peterson, 2006, p. 4), being concerned about strengths and weaknesses in a balanced way. Learner and teacher psychology are regarded as vital for language teaching, learning, and interaction (MacIntyre et al., 2019). MacIntyre and Gregersen (2012) argue that positive emotions help "the building of resources because positive emotion tends to broaden a person's perspective, opening the individual to absorb the language," whereas negative ones result in "a narrowing of focus and a restriction of the range of potential language input." (p. 193). Negative emotions such as boredom, fear, burnout, lack of

motivation, and so forth have been commonly addressed in second language acquisition, and an analysis of the related literature shows anxiety is the most studied one. Nevertheless, positive emotions have started to attract attention lately, leading to the birth of the field of Positive Psychology in language pedagogy (MacIntyre & Gregersen, 2012; MacIntyre et al., 2019).

Positive Psychology is important for foreign language instruction, as positive feelings could contribute to diverse dimensions of life, including foreign language instruction (Wang et al., 2021). In their conceptual review paper, Wang et al. (2021) list seven positive psychology variables, including academic engagement, emotion regulation, enjoyment, grit, loving pedagogy, resilience, and well-being. Academic engagement should be understood as "the quality of a student's connection or involvement with the endeavor of schooling" (Skinner et al., 2009, p. 494). Emotion regulation "focuses primarily on the modulation of internal emotional changes so as to meet the external needs" (Wang & Saudino, 2011, p. 96). Enjoyment is conceptualized "as the pleasant feelings that originate from going beyond homeostatic boundaries as well as extending oneself to gain new experiences, particularly when one encounters challenging tasks" (Shirvan et al., 2020, p. 2). Grit refers to "perseverance and passion for long-term goals" (Duckworth et al., 2007, p. 1087). Loving pedagogy refers to "the use of love in teaching and learning to attain mutually desirable ends" (Loreman, 2011, p. 9), which covers various elements such as kindness, empathy, sacrifice, acceptance, bonding, acceptance, forgiveness, empathy, community, passion, and intimacy. Resilience is "the capacity to maintain equilibrium and a sense of commitment and agency in the everyday world" (Gu & Day, 2013, p. 26). Well-being should be understood "as the dynamic sense of meaning and life satisfaction emerging from a person's subjective personal relationships with the affordances within their social ecologies" (Mercer, 2021, p.16).

The current research is also grounded in Mindfulness-Based Stress Reduction (MBSR), for such practices are documented to alleviate writing apprehension and help focus, thereby improving writing self-efficacy and achievement. Mindfulness-Based Stress Reduction (MBSR), devised by Jon Kabat-Zinn, aims at integrating "the Eastern meditative dharma practices and perspectives within a Western paradigm of behavioral interventions" (Kabat-Zinn, 2003, p. 73). Mindfulness was first utilized in 1979 in the alleviation of psychological problems and pain. Then, the scope was broadened to include workplace and educational settings to help related parties regulate emotions and social interactions, improve concentration, and contribute to academic performance (Zhang et al., 2021). Integrating mindfulness principles into second language writing, particularly as is done in the current research via systematic classroom-based guided meditation sessions, could help alleviate language apprehension. Meta-analyses focusing on the correlation between foreign language anxiety and language performance document that anxiety is closely related to not only academic performance but also self-efficacy, self-confidence, motivation, and enjoyment, to list but a few (see, for instance, Teimouri et al., 2019; Zhang, 2019). Language learning anxiety has also been reported to be negatively correlated with positive psychology parameters including personality dimensions such as grit (Li & Dewaele, 2021; Teimouri et al., 2022), mindfulness and meditation (Gao, 2022; Rahman & Syafei, 2019; Önem, 2015; Tekin & Satan, 2024;), willingness to communicate (Shanti-Manipuspika, 2018; Zhou et al., 2023), enjoyment, (Chen et al., 2024), resilience (Bennett et al., 2018), emotional intelligence (Chen et al., 2024), as well as learning environments (Li & Dewaele, 2021) and so forth. Therefore, the integration of mindfulness in language pedagogy could yield numerous positive outcomes.

Providing a lens to explore the impact of guided meditation on writing self-efficacy and achievement, the self-efficacy component of Bandura's (1997) Social Cognitive Theory focuses on personal evaluations of competence. Self-efficacy should be understood as "judgments of

personal capability" (Bandura, 1997, p. 11). The concept covers anticipation of competence and the skill to deal with academic challenges (Fan & Cui, 2024). The self-efficacy component of Bandura's (1997) social cognitive theory suggests that social experiences could determine behaviors, and four factors play a key role in self-efficacy. These are previous experience and performance covering success or failure, indirect experiences referring to one's observations and learning from others' performances, peer influence, and physiological or affective states. Particularly, the last factor is related to contemplative pedagogy, including mindfulness practices and meditation, for physical well-being as well as positive emotions could encourage one to make positive judgments about one's performance and capacity; on the other hand, the negative ones, such as anxiety and stress can weaken it.

Writing self-efficacy should be understood as the personal judgments of individuals about their abilities or inabilities to accomplish a writing task, considering various parameters, including accuracy, fluency, coherence, mechanics, and format (Sun & Wang, 2020). The ones with particularly high writing self-efficacy are documented to have low writing apprehension and high writing enjoyment and interest, which contributes to better academic success (see, for instance, Martinez & Cass, 2011; Mitchell et al., 2019; Sanders-Reio et al., 2014; Sun & Wang, 2020). As confidence in one's capacity is related to regulating emotions and handling challenges, the concept is related to contemplative pedagogy, including meditation. Studies are highlighting the link between mindfulness-oriented practices and general foreign language learning. For instance, Fan and Cui (2024) found that such practices could contribute to the self-efficacy scores of Chinese EFL learners, thereby enhancing their psychological well-being and overall language performance. Besides, self-efficacy was found to correlate with self-regulation, which should be understood as the skill to managing one's feelings, thoughts, and behaviors. Mindfulness practices are also associated with better writing self-efficacy scores in particular. To illustrate, while Drewery et al. (2022) found that the breathing exercise contributed much to self-efficacy for learning writing in a writing-intensive course, Waldman and Carmel (2019) found that such practices could also help teaching writing self-efficacy for teaching writing of pre-service English language teachers as well.

1.2 Guided meditation and writing

Among three frequent ways of focusing that should be interpreted as an attempt to enhance meditation skills, including opened-eye meditation and mantra, guided meditation draws much attention. (Buchanan, 2017). "Guided meditation" (sometimes called guided imagery, creative visualization, mental rehearsal, guided self-hypnosis, or even scripted fantasy) takes the meditator to an imaginary place, and the purpose is to train the mind to focus on the imaginative journey and avoid distractions and worries" (Nãdrag & Buzarna-Tihenea, 2022, p. 117). This, in turn, could develop their creative and reflective thinking, enhancing their cooperation and interaction abilities thereby contributing to English language learning (Nãdrag & Buzarna-Tihenea, 2022). The meditation processes documented in the literature may vary. To illustrate, at schools, after following four main steps, including "setting the scene, relaxing the students' body, guided imagery and grounding exercise," teachers could "involve students in a productive activity or even in a teaching activity." (Nãdrag & Buzarna-Tihenea, 2022, p. 120).

In addition to various positive outcomes of guided meditation for foreign language learning, its role in the reduction of apprehension is important, for this positive mood could help them feel easier, concentrate better, and receive much (Jenkins, 2015; Kimble, 2019; Zeilhofer, 2023), thereby feeling more competent, particularly in writing. Various challenges experienced by undergraduates increase the importance of such integration in particular writing: language-

related challenges covering the inability to use discourse markers, inappropriate vocabulary choice, repetitions, structural issues that should be understood as problematic content organization, problematic in-text citation and referencing, and content-related problems including the difficulty to distinguish genres, lack of enough major and minor supporting points (Noori, 2020); the tendency to see it as "a restricted, rule-governed, and dull world with little opportunity to personalize their texts and little room for engagement and creativity," which leads to frustration, confusion, stress, and writing fear (Roald et al., 2021, p. 762); the difficulty to choose appropriate words, to develop good thesis statements and organize ideas, to start writing, which may result from lack of writing practice opportunities, lack of resources, lack of motivation, and lack of constructive feedback (Aldabbus & Almansouri, 2022); Anxiety and stress (Elliott et al., 2019). Similarly, Turkish undergraduates face such challenges (see, for instance, Kara, 2013; Kırmızı & Kırmızı, 2015), resulting from some educational and contextual factors (Altınmakas & Bayyurt, 2019). While those educational factors cover the lack of pre-university Turkish and English writing instruction and experience, contextual ones are problematic conceptualization of writing, restrictive nature of academic writing, text genre preferences, and lecturers' attitudes towards students. Thus, the close link between high writing self-efficacy, low writing apprehension, and high writing enjoyment and interest, resulting in better academic success (see, for instance, Martinez & Cass, 2011; Mitchell et al., 2019; Sanders-Reio et al., 2014; Sun & Wang, 2020) could justify the integration of such practices in foreign language writing. Still, a few meditation implementation challenges have been documented, such as students talking during the meditation, brief music segments as a meditation component, low sound, students engaging with their mobiles, boredom, repetitive nature, i.e., the same meditation track, the voice of the speaker, the language of the meditation script, lack of a clear understanding of its purpose, music quality (Hall et al., 1990; Kimble, 2019).

1.3 The present study

The positive outcomes of mindfulness-based interventions regarding social and emotional development as well as academic performance in education contexts have been documented; however, there are still calls to investigate the impact of such implementations with "more rigorous study designs" (Roeser, 2014, p. 399) utilizing "randomization, active control groups, blind raters, and both self-report and behavioral, physiological, social-observational, and other-informant measures of outcomes" (p. 412). Furthermore, as the related studies depending solely on surveys and interviews are not enough to have a complete understanding, further studies with more reliable, valid, and rigorous non-self-reports are needed (Taylor et al., 2016). Responding to such calls to further the existing understanding with non-self-reports, the present pre-test-post-test quasi-experimental research design triangulating the quantitative data with self-administered questionnaires and semi-structured interviews was designed to investigate the possible impact of a classroom-based guided meditation implementation accompanied with breathing, music, and monolingual affirmations on the participants' foreign language writing self-efficacy, achievement, and perceptions. The following research questions guided the current research:

1. How does the guided meditation impact the participants' writing self-efficacy?
2. How does guided meditation impact students' writing achievement?
3. Does the intervention with and without music change self-efficacy and achievement?
4. What are the participants' perceptions of the implementation?

2 Methodology

2.1 The setting and the participants

The School of Foreign Languages at a state university located in the northeastern region of Türkiye served as the setting of the current research. The total sample was 69 preparatory program students (61 % female, 39 % male) enrolled at the Department of English Language Teaching and the Department of Translation and Interpretation. While Experimental Group I (27 participants; F=15; M=12) and Experimental Group II (19 participants; F=13; M=6) were from the former, the latter served as the Control Group (CG) (23 participants; F=17; M=6). The commonality among these groups was that all three covered students who could not get 80 out of 100 from the initial English Proficiency Exam at the department and, therefore, were required to have a one-year intensive English program with separate productive and receptive language skills. The ages of all groups ranged from 17 to 21, and they were almost all of Turkish origin except for one Syrian male in EG I, an Iranian male, and one Egyptian female in EG II. The randomly assigned intact groups were almost equal regarding age, sex, and academic performance, and they followed the same language syllabus, used the same instructional materials, and were evaluated with the same traditional and alternative assessment tools. Additionally, the qualitative data from the interviews were gathered from 6 participants from both experimental groups.

2.2 The guided-meditation-empowered writing sessions

The current 10-week study covers both pre-post data gathering and actual treatment. After the pre-tests and initial open-ended questionnaires, EG I and EG II participated in 60-minute guided meditation-empowered writing sessions from November 6, 2023, through January 12, 2024. After the implementation, post-tests were applied, and open-ended data were collected using two tools. Matko et al. (2021) document a comprehensive list of meditation techniques, such as concentrating on breathing and body parts like the abdomen, feeling heartbeat, releasing body tension, focusing on an object, repeating a mantra, listening to specific sounds, repeating an affirmation, visualizing, walking and so forth. In the current study, once a week, after the participants did a 10-minute breathing activity, they listened to a 15-minute audio document with positive affirmations in Turkish. Then, they were asked to do a 30-35-minute free writing activity on psychology-related issues, including learning motivation, stress management, personal mood and well-being, coping strategies, personal growth, and time management. After a short break, they continued doing the usual writing activities such as pre-writing, writing well-organized paragraphs with diverse modes of development, getting feedback, and revising and editing. The audio document of the EG I was accompanied by 432 Hertz tuned instrumental music, which could lower the blood pressure, heart rate, and respiratory rate and relax the brain as a result (Calamassi & Pomponi, 2019), while the EG II listened to the same audio without music. Following the same writing syllabus, the CG did not undergo treatment.

The researchers, who are both academicians and practitioners, i.e., pracademics, explored the documented literature to devise possible affirmations, and then, after creating the tentative final version, they asked for the opinion of an expert from the Guidance and Psychological Counselling Department of their institution. Later, the text was finalized, and another expert from the Turkish Teaching Department of the same institution created the audio document. Lastly, they created two 15-minute audio documents covering statements on eliminating foreign

language learning and writing-related negativities and reinforcing the positive ones, i.e., one with a 432 Hertz tuned instrumental music and one without music.

2.3 Data gathering and analysis

To investigate the possible impact of the guided meditation treatment on the participants' self-efficacy, the Questionnaire of English Writing Self-Efficacy (QEWSE) devised by Sun and Wang (2020) was used. The 27-item scale covers five subscales including "ideation (3 items), organization (5 items), grammar and spelling (4 items), use of English writing (8 items), and self-efficacy for self-regulation (7 items)" (Sun & Wang, 2020, p. 5). The 7-point Likert scale of the questionnaire, accompanied by "can do" statements, ranges from 1, which shows complete inability, to 7, which shows complete ability. It was chosen as one of the quantitative data-gathering tools, for the scale had a high overall internal consistency (0.94). Besides, the internal consistency scores of all five subscales were found acceptable for social sciences: "0.71 (ideation), 0.82 (organization), 0.78 (grammar and spelling), 0.87 (use of English writing), and 0.78 (self-efficacy for self-regulation), respectively" (pp. 5-6).

Regarding academic achievement, the entry Proficiency Exams and first formal quiz served as pre-tests, while the exit Proficiency Exam and the final quiz served as the post-tests. Those institution-devised exams aligned with TOEFL and IELTS had face validity, for they aimed at comprehensively measuring non-native speakers' English proficiency, including reading, speaking, listening, and writing. Additionally, those carefully devised and updated measures by a team holding MA and PhD degrees were ensured to fit the program's curriculum and outcomes. Furthermore, using the same set of tools as pre- and post-measures ensured assessment consistency.

To conduct the quantitative analyses, the researchers utilized Statistical Package for the Social Sciences (SPSS) as the most familiar statistical analysis program in social sciences and second and foreign language research (Larson-Hall, 2010). One-way analysis of variance, i.e., ANOVA, was used to compute F values to compare and contrast the means of EG I, EG II, and CG (Cramer & Howitt, 2004; Field, 2013; Larson-Hall, 2010; Montgomery, 2017; Weiss, 2016). Besides, it allowed the researchers to compare the scores in two different treatments, control Type I error, see the statistically significant impact, and answer the question of whether the treatments were effective regarding self-efficacy and achievement (Cramer & Howitt, 2004; Field, 2013; Montgomery, 2017; Weiss, 2016). Furthermore, a paired samples t-test was computed to compare the self-efficacy scores and achievement before and after the treatment (Dörnyei, 2007) and see whether the implementation resulted in any related change in the same participants.

To answer the research questions regarding the perceptions of the participants including their satisfaction, intention for future engagement, and suggestions to better the implementation, qualitative data were collected via a self-completion or self-administered questionnaires (Bryman, 2004) before and after the treatment and individual semi-structured interviews after the treatment. While their satisfaction was explored with two questions in the post-questionnaires, their willingness to engage in such future implementations was investigated with one question in the interviews. Lastly, their suggestions were gathered with both post-questionnaires and interviews.

The qualitative data expressed by the participants themselves, which are believed to help researchers "develop insights on how subjects interpret some piece of the world" (Bogdan & Biklen, 2007, p. 103), were analyzed through content analysis. After the written self-administered questionnaires were cleaned and the oral interview data were transcribed, the data

were condensed separately through the creation of descriptive and process coding (Miles et al., 2014). The causal link was explored by identifying recurring patterns, and the analyses were compared and contrasted to interpret and report the data (Miles et al., 2014).

3 Results

Once the data were confirmed to follow a normal distribution, parametric tests were conducted to identify potential group variations. The findings are presented in line with the research questions.

3.1 Impact of the intevention

3.1.1 Impact on self-efficacy with five dimensions

The first research question explored the impact of the treatment on the participants' self-efficacy. Each sub-component of the QEWSE was computed and subjected to statistical analysis across three groups. A Paired Samples T-test was run to compare pre-and post-test scores for the questionnaire after eight weeks of treatment with guided mediation. The results are tabulated in Table 1.

Table 1

Paired samples t-test result for pre-post test comparison of self-efficacy scale

		Group	Mean	N	Std. Deviation	Sig.
EG I	Pair 1	Pre-ideation	4.66	27	1.17	.00
		Post- ideation	5.58	27	.713	
	Pair 2	Pre-organization	4.65	27	1.02	.02
		Post-organization	5.24	27	.71	
	Pair 3	Pre- grammar &style	4.45	27	.93	.00
		Post- grammar &style	4.99	27	.95	
	Pair 4	Pre-use of English	4.30	27	.73	.00
		Post- use of English	5.46	27	.73	
	Pair 5	Pre-self-efficacy for self-regulation	4.69	27	.85	.00
		Post- self-efficacy for self-regulation	5.35	27	.82	
EG II	Pair 1	Pre-ideation	4.59	19	.92	.01
		Post- ideation	5.19	19	.93	
	Pair 2	Pre-organization	4.55	19	.64	.00
		Post-organization	5.36	19	.90	
	Pair 3	Pre- grammar &style	4.42	19	1.01	.00
		Post- grammar &style	5.03	19	1.12	
	Pair 4	Pre-use of English	3.67	19	.83	.00
		Post- use of English	5.19	19	1.04	
	Pair 5	Pre-self-efficacy for self-regulation	4.48	19	.74	.00
		Post- self-efficacy for self-regulation	5.28	19	1.09	
	Pair 1	Pre-ideation	4.81	23	.98	.00
		Post- ideation	5.56	23	.82	

	Pair 2	Pre-organization	4.88	23	.87	.00
		Post-organization	5.59	23	.72	
CG	Pair 3	Pre- grammar &style	4.63	23	1.26	.01
		Post- grammar &style	5.27	23	.87	
	Pair 4	Pre-use of English	4.63	23	.77	.00
		Post- use of English	5.64	23	.81	
	Pair 5	Pre-self-efficacy for self-regulation	4.80	23	.91	
						.19
		Post- self-efficacy for self-regulation	5.08	23	.75	

The analysis involved comparing the pre-and post-test findings of the EG I, EG II, and CG across five domains: ideation, organization, grammar and style, usage of English, and self-efficacy for self-regulation. In three groups, significant improvements were observed in ideation, organization, grammar and style, use of English, and self-efficacy for self-regulation. The findings indicate that all groups showed improvements in the measured dimensions from the initial test to the final test, with statistical significance reported in the majority of situations.

3.1.2 Impact on writing achievement

The second research question aimed to explore any potential impact of the guided meditation treatment on the participants' writing achievement. The writing scores of all groups are compared in the table below.

Table 2

ANOVA test results for writing achievement among groups

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum	Sig.
EG I	26	78.86	5.38	1.05	65.00	88.00	
EG II	19	81.02	6.55	1.50	67.00	92.50	.36
CG	23	81.39	7.90	1.64	64.00	94.00	
Total	68	80.32	6.65	.80	64.00	94.00	

According to the results of the ANOVA analysis, the differences in writing scores between the groups were not statistically significant, $F_{(2, 65)} = 1.028$, $p = 0.36$, indicating that the treatment did not affect writing proficiency positively or negatively.

3.1.3 Impact of the intervention with and without music

Independent sample T-tests were conducted to determine whether there were possible differences between groups that received intervention with background music and those without it.

Table 3

Independent samples t-test results for the impact of intervention differences on self-efficacy for writing

	Group	N	Mean	Std. Deviation	Sig.
Post- ideation	EG I	27	5.58	.713	
	EG II	19	5.19	.931	.08
Post- self-efficacy for self-regulation	EG I	27	5.35	.821	
	EG II	19	5.28	1.098	.27
Post-organization	EG I	27	5.24	.715	
	EG II	19	5.36	.904	.23
Post- grammar &style	EG I	27	4.99	.951	
	EG II	19	5.03	1.121	.23
Post-use of English	EG I	27	5.46	.739	
	EG II	19	5.19	1.047	.09

The statistical analysis showed no significant differences between groups regarding sub-components of the QEWSE. The post-Ideation mean score of EG I was 5.58 (SD=0.713), while the mean score for EG II was 5.19 with a standard deviation of 0.931 and a significance level of .08, indicating no statistically significant difference. Similarly, the self-efficacy for self-regulation mean score for EG I was found to be 5.35 (SD= 0.821), while the mean score for EG II was 5.28 (SD=1.098), indicating no statistically significant difference with a p-value of .27. Mean scores for EG I and EG II were respectively 5.24 with an SD of 0.715. and 5.36 with an SD of 0.904. for the organization subcomponent of the questionnaire, which also showed no significant difference with a p-value of 23. Similarly, grammar and style and use of English subcomponents revealed no significant differences between EG I and EGII with mean scores of 4.99 with an SD of 0.951, 5.03 with an SD of 1.121, and 5.46 with an SD of .739, and 5.49 with an SD of 1.047 respectively (P = .23 for EG I and .09 for EG II).

3.2 Perceptions on the effect of guided meditation on students' writing process

Another concern of the present study was to explore the participants' perceptions towards the implementation through interviews and questionnaires. The main themes that emerged as a result of the analysis based on one-to-one interviews with a phenomenological approach are as follows:

Table 4

The role of the treatment on writing process

Emergent Theme	Explanation of the Theme	Example Extract
Relaxation and Writing Fluency	The participants assert that meditation and breathing exercises improve writing flow, fluency, and confidence. Affirmations reduce apprehension of criticism, allowing for greater freedom in writing.	You know, sentences in the voice like "I'm good at writing" or "Others can judge me" have increased my awareness. That's why I don't think much like that when I write. At first, for example, I wondered if my friends would judge me, but then I relaxed. Feeling more comfortable decreased my anxiety and increased my writing fluency. (P2)
Distraction and Mood Swings	A few individuals reported experiencing distractions during the latter phases of the intervention. Some participants saw that the impact of meditation and affirmations on the writing process depended on their emotional state. It was emphasized that these strategies were effective in a positive mood but lacked the same impact in a negative mood.	I remained calm during the writing process by taking advantage of breathing exercises' relaxing effect. However, this effect varied depending on my mood. For example, I found these techniques helpful on a good day, but on a bad day, I did not see the same effect. Nevertheless, the affirmations and breathing exercises improved my writing speed over time. (P3)
The Fluctuating Effect of Affirmations	While some reported that breathing exercises initially helped them feel relaxed and thus their writing fluency and focus enhanced, some still reported just the opposite, noting that breathing exercises initially caused distress for some participants and negatively impacted the writing process. However, those who became accustomed to the exercises gradually felt more comfortable and saw improved writing speed and decreased stress levels.	I noticed that the intervention provided initial relaxation and fluency in the writing process, especially in free writing. Initially, I felt that the writing flowed like a poem, but later on, I got distracted and could not fully benefit from this effect. (P1)

These themes reveal that the participants experienced the effects of meditation, breathing exercises, and affirmations on their writing process in different ways during the writing process. They particularly focused on the relaxing role of breathing exercises and affirmations in reducing their stress and helping them focus on the task better, thereby contributing to their writing fluency. However, these experiences varied depending on factors such as mood, familiarization with the practice, initial stress, and the phase of the treatment.

3.3 Perceptions on the effect of guided meditation on students' motivation to write

The emerging themes regarding the treatment's impact on the participants' writing motivation are tabulated and exemplified below.

Table 5

The role of the treatment on writing motivation

Emergent Theme	Explanation of the Theme	Example Extract
The Reinforcing Effect of Affirmations	Some participants asserted that meditation and affirmations boost motivation to write. Affirmation sentences like "Writing is my job" and "I am a great English student" leave a lasting impression on the mind. Constant repetition of these sentences boosts self-confidence and enthusiasm for writing.	I think they affected my motivation to write. Especially free writing. Anyway, I am sorry, it was not very good normally. I was thinking a lot while I was writing or thinking in Turkish, but I was trying to translate it into English and write it. But I think the affirmations I heard over time encouraged me and helped me increase my writing speed. (P3)
The Calming Effect of Meditation	The participants' breathing exercises and meditation significantly boosted their motivation to write as they experienced relaxation and a more relaxed approach to writing.	I think I wrote more fluently thanks to the relaxation I experienced after meditation. (P1)

The findings indicate that meditation, breathing exercises, and affirmation techniques significantly contributed to enhancing the participants' drive to write. The repetition of such positive sentences and the relaxation had a lasting impact on their enthusiasm for writing. These practices, in the end, enhanced their writing self-confidence.

3.4 Perceptions on the effect of guided meditation on coping with writing difficulties

The following table encompasses the themes arising from the interviews related to the role of the treatment on writing difficulty coping.

Table 6

The role of the treatment on writing difficulty coping

Emergent Theme	Explanation of the Theme	Example Extract
Failure to Overcome Challenges Completely	The participants stated that while the intervention was useful in overcoming certain obstacles, it did not provide a perfect solution to all challenges. Specifically, it was emphasized that ongoing grammatical issues require further attention and effort.	It made me feel more confident in my writing, but I still struggled with vocabulary and language structures. (P6)
Need for Continuous Improvement	The participants said that the intervention was efficacious in mitigating their challenges, particularly during the initial stages. They emphasized the importance of continuous effort to overcome challenges during the writing process and emphasized the need for further research on this topic.	I think this practice needs to be done continuously and variably, but while doing this, it is necessary to investigate how to make it more effective so that we will not get bored. (P2)

These themes demonstrate that meditation, breathing exercises, and affirmations substantially assisted the participants in addressing the challenges, particularly related to the difficulty of

focusing and writing smoothly. However, it should be noted that these practices were not entirely effective in resolving all the problems.

3.5 Perceptions of students on the effect of guided meditation on their language learning journey

In the interviews, the participants were also asked about the impact of the treatment on their broader English language learning journey, which is summarized below in three general themes.

Table 7

Impact on language learning journey

Emergent Theme	Explanation of the Theme	Example Extract
Increased Self-confidence	The participants said that the intervention enhanced their self-confidence while acquiring proficiency in the English language. Their augmented self-assurance facilitated the sharing of their writings and enhanced their engagement in the process of learning English. The affirmation phrases significantly impacted the participants' perception of themselves as better English learners and motivated them to make an effort in that direction.	When I got stuck while writing, I motivated myself by remembering the sentences in the meditation, such as "I am a good English learner," I share what I write without fear," and I continued to write. (P3)
Contribution to General English Learning	The intervention seems to improve participants' English writing and speaking proficiency, leading to increased confidence in English sessions and a more positive attitude towards language learning.	The affirmations we heard also had an impact on my speaking skills. Sentences such as "I am a good language learner" also impacted my use of other skills. (P2)
Continuous Development and Sustainability of Implementation	The participants expressed an ongoing need for motivation and growth in their English learning journey. Affirmations and meditations were key factors that provided support and motivation during this process. Nevertheless, this drive's sustainability and long-term effects rely on its consistent implementation and personal endeavor.	As students, we need motivation a lot. Meditation had some effects, but after the practice ended, it seemed like the effect started to decrease. So I think it should be continuous. (P1)

These themes indicate that meditations and affirmations make significant contributions to self-confidence, motivation, and anxiety management during the English learning process. However, the extent of these contributions should be reinforced through consistent practice.

4 Discussion and implications

The current research explored the possible impact of a classroom-based guided meditation implementation accompanied by breathing, music, and monolingual affirmations on the participants' foreign language writing self-efficacy and achievement and the participants' perceptions. The statistical analysis of pre and post-test scores for the QEWSE did not reveal any significant variations in almost all self-efficacy components across the three groups, which should be understood as anticipation of competence and the skill to deal with academic

challenges (Fan & Cui, 2024). The intervention appears not to significantly impact learners' self-efficacy since the scores of the control group grew comparably to those of the two experimental conditions. However, the control group's score for self-efficacy in self-regulation was found to be significantly lower than that of the experimental groups. This subscale pertains to writer's opinions of their ability to proficiently oversee and regulate their writing process, including tasks such as setting goals, planning, and making necessary revisions. The self-confidence of authors is closely associated with these factors, and the experimental groups likely experienced a rise in self-confidence via the use of affirmations, given the majority of affirmations were designed to enhance this particular sensation. This contradicts the findings of Fan and Cui (2024), who found that such contemplative practices could contribute to self-efficacy scores of Chinese EFL learners, the findings of Drewery et al. (2022), who found that the breathing exercise contributed much to self-efficacy for learning writing in a writing-intensive course, and the findings of Waldman and Carmel (2019), who found that such practices could also help teaching writing self-efficacy for teaching writing of pre-service English language teachers as well. Furthermore, one of the aims of the present study was to see how treatments with and without music could impact self-efficacy scores. The lack of a statistically significant difference between the related scores of the participants allowed the researchers to conclude that guided meditation accompanied by breathing and affirmations rather than music brings success in such contemplative practices. Additionally, the type of music and personal preferences could yield that result.

However, the one-to-one interview data support the conclusion that these affirmations enhanced the participants' sense of self-efficacy for self-regulation, leading to better scores on the questionnaire. The data acquired from the interviews yielded more comprehensive insights into the participants' experiences with the treatment. A comprehensive analysis was conducted on four questions that enquired about the perceived impact of the intervention on the writing process, motivation to write, difficulties in writing, and the overall language learning process. The analysis of participants' responses revealed consistent patterns: they reported feeling at ease, experiencing a boost in self-assurance through affirmations, and being more driven to engage in writing activities. This supports the well-documented correlation between writing anxiety, academic performance, self-efficacy, self-confidence, motivation, and enjoyment, to list but a few (see, for instance, Teimouri et al., 2019; Zhang, 2019). This finding is in line with the documented literature highlighting that high self-efficacy may result in low writing apprehension and high writing enjoyment and interest, thereby promoting academic success (Martinez & Cass, 2011; Mitchell et al., 2019; Sanders-Reio et al., 2014; Sun & Wang, 2020).

Nevertheless, the participants emphasized the need to ensure the sustainability of these practices in courses since they experienced feelings of boredom or distraction in subsequent phases and observed that the effects of meditation did not endure in the long run. Still, it should be kept in mind that several factors might impact students' moods while they are in the classroom. These include individual differences, pre-existing beliefs and attitudes, motivation and resistance, cultural and social factors, and emotional reactions. As Bandura (2997) notes, previous experience and performance covering success or failure, indirect experiences referring to one's observations and learning from others' performances, peer influence, and physiological or affective states could all affect self-efficacy. Hence, it is unnecessary to emphasize that mitigating the impact of these influences and redirecting learners' attention toward the learning process is challenging.

Each classroom is unique with its different cultural and institutional background. Yet, meeting the objectives of the researchers, the findings showed certain lessons to be drawn. First, the results indicate the need to help students gain familiarity with breathing exercises and

meditation. Teachers should allocate sensible time and activities in their syllabuses to cultivate positive psychology in their classes so that students can collectively be aware of such practices and feel not unusual when they tend to use the implementation in later stages of their lives. As they gain familiarity, their potential to use them will increase, and they will not feel that doing such things is humiliating. Related to the first issue, they need to be prepared first. Emphasizing the importance of first preparing learners intellectually, emotionally, and physically in scripted fantasy, Hall et al. (1990) note that after they are informed about the purpose of the activity, their emotions and responses need to be accepted by encouraging their participation and allowing the freedom to opt-out or stop whenever they want. Their physical preparation requires preparing a comfortable room with appropriate temperature and lightning, asking them to sit upright. After a relaxing activity, they listen to a series of suggestions, preferably putting their heads on their folded arms on their desks, with closed or open eyes (Hall et al., 1990).

Second, foreign language instructors need to develop a positive mindset towards the potential of such context-tailored practices to promote more positive classroom atmosphere via enhancing classroom dynamics. They must be aware that breathing exercises and affirmations can encourage students to be more open to failure and more flexible to their peers' language errors. In such classes, learner anxiety and self-efficacy may decrease, allowing them to be more active in writing and speaking skills. It is recommended that teachers write positive affirmations in line with their students' needs, concerns, wishes, and the local culture of learning and create their own unique guided meditations to foster a more positive classroom atmosphere. Third, the current study found that the intervention helped students gain self-efficacy for self-regulation, which means that students receiving meditation felt more in control of their writing process. Therefore, aware of the potential of such contemplative practices to improve self-efficacy for self-regulation, teachers can guide students using breathing exercises and repeat affirmations when they feel overwhelmed, distracted or stuck in the language learning process. Lastly, the present study points to the importance of consistent meditation practices to ensure positive outcomes, and hence, teachers need to focus on modeling lifelong learning and wellness skills to support personal, academic, and professional growth. When students are more informed about the benefits of meditation and breathing exercises, they can use them to manage stress in different academic and non-academic contexts throughout their lives. Teachers can ask their students to use these techniques both in their academic and personal lives, making them more aware of wellness skills.

5 Conclusions

The primary objective of the present study was to identify a potential remedy for participants' perceived effectiveness in the writing process by exposing them to affirmations that promote writing and the utilization of English in their learning journey. The growth of the CG scores in a comparable manner to those of the two experimental conditions lets the researchers conclude that the 8-week intervention does not have a significant impact on the self-efficacy of the participants. However, the CG's score for self-efficacy in self-regulation was found to be significantly lower than that of the experimental groups. On the other hand, the qualitative data pointed to the potential of guided meditation to feel at ease, experience a boost in self-assurance through affirmations, and be more driven to engage in writing activities. Yet, the feelings of boredom or distraction in subsequent phases were found to be serious concerns, thereby creating urgent attention to consistent implementation and personal endeavors for the sustainability of such contemplative practices in foreign language instruction.

Finally, this study is not without limitations. First, the participants did breathing and meditation exercises for the first time, resulting in initial resistance to feeling and internalizing affirmations. Therefore, a pre-familiarization process could allow future studies to avoid such potential resistance. Second, they did not have any meditation experience, and therefore, comparing participants with and without meditation and breathing experience in future studies could yield interesting results, furthering the existing understanding. Third, the short duration of the study may result in difficulty in capturing the changes in self-efficacy. Thus, longitudinal studies could capture those possible impacts that require longer times. Lastly, although research studies on learners' psychology consistently highlight the importance of positive psychology in classes, experimental studies seeking to understand factors that boost positive psychology are still needed, thereby creating the need to further the existing understanding of the issue with experimental studies in the future.

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