Review article

The contribution of mindfulness in the association between L2 learners' engagement and burnout

Juan Wu [a], Qifeng Zhao [b],*

[a] *School of Foreign Languages, Zhengzhou University of Economics and Business, Zhengzhou, Henan, 451191, China*
[b] *School of Electronic and Information, Zhongyuan University of Technology, Zhengzhou, Henan, 450007, China*

A B S T R A C T

There has been recently a growing interest in L2 learners' engagement as a central factor in their success. However, not all L2 learners are engaged intellectually, passionately, and behaviorally in L2 learning and this can be due to their experience of burnout in language educational settings. On the other hand, L2 learners frequently encounter heightened degrees of burnout because of emotional and behavioral disengagement. To relieve the relationship between engagement and burnout, the influential technique known as mindfulness, as a coping mechanism for enhancing engagement and reducing burnout among L2 learners, has emerged. Given this conceptual model, the purpose of this paper is to argue the mediator role of mindfulness, in light of self-determination and self-control theory, between L2 students' engagement and burnout. A few directions for future inquiries are discussed following this review.

1. Introduction

With the improvement of Positive Psychology (PP), researchers have often perceived its important function in language education [1–5]. The advancement of students' education, as associated with the educational process, plays a significant role in shaping academic outcomes and the overall quality of learners, as elucidated by Wang and Guan [6]. A pivotal concept tied to education and its resultant achievements, such as improved scores, completion rates, and success in examinations, is the notion of engagement [7–9]. This concept pertains to the degree of students' enthusiasm and involvement in the conventional educational process and encompasses the dedication, time, and energy they invest in their educational learning activities [10–13]. Engagement among students is a multifaceted construct, commonly evaluated in terms of students' actions, cognitive processes, and emotional states that directly relate to their academic responsibilities [14,15]. Wang and Ye [16] offered initial support for the significance of engagement in educational contexts and it is maintained that good learners' engagement is a necessity for a good educational presentation. Despite its relatively recent emergence as a prominent topic of interest, it has gained significant traction within the realm of academic research, particularly within the context of PP [17–19]. Positive psychologists have attempted to enhance the perception of how often people prosper under more risk-free situations to trigger a transition in the focus of awareness from focusing solely on replacing the chief problems in life to molding positive greatness [20].

Engagement stands as a fundamental prerequisite for effective education, and its absence can precipitate feelings of exhaustion [21, 22], potentially posing a threat to academic attainment in the context of foreign language education, as noted by Dörnyei [23]. In the

---

* Corresponding author.
    E-mail address: 6516@zut.edu.cn (Q. Zhao).

absence of engagement, students may exhibit disruptive behaviors, lack motivation to strive for higher academic performance, and might even consider dropping out of school. Such disengaged learners tend to adopt a passive stance and struggle with feelings of boredom, anxiety, or stress within the classroom [24]. These challenges often manifest as enduring educational setbacks, the emergence of noticeable academic anxiety, and a reduced capacity to adapt to the academic and social milieu. Regrettably, these issues can persist and become more pronounced as students transition out of the educational system [25]. The degree of anxiety that students face in the foreign language academic process could have detrimental effects on their academic success and attainment [26]. Also, burnout is more known among English as a Foreign Language (EFL) students than among other students that are the outcome of long-lasting chronic anxiety that results in problems like emotive tiredness, short-temperament, physical conditions like headaches, and cognitive deficiency like memory and meditation problems [27]. Furthermore, this concept is connected to various unfavorable results, namely poor presentation, psychological suffering, and dropouts from school [6]. Burnout is a widely observed issue in the academic domain that hinders learners from reaching their educational objectives. Students experience burnout when they engage in prolonged periods of work over which they have limited or no control, and when they lack enthusiasm or a compelling reason to persist in their academic tasks [28]. Researchers mentioned that burnout is associated with physical conditions and sadness [29]. Even though there is much literature on teachers' burnout in academic studies, students' burnout has not been taken into account [27]. In light of the significance of student engagement [30] and the detrimental effects of burnout [31], it is imperative for educators to recognize indicators of burnout and implement effective resources to mitigate its impact and improve learners' engagement.

To increase students' engagement and decrease their burnout, it seems fundamental to look for the strategies that work best in this domain, and based on the research conducted, mindfulness is another constructive psychological resource to lessen anxiety and pressure, manage attentiveness problems, and increase learners' general well-being [32]. Mindfulness-based methods are believed to be a viable option for educators to enhance their students' focus, engagement, and curiosity, ultimately decreasing the likelihood of burnout [28]. Specifically, a mindful person has increased awareness of the status quo and provides a core focus on remaining in the current moment [33]. It has been shown that mindfulness is an effective strategy for encouraging constructive reactions to anxiety and lowering self-harming tendencies [34]. It is a useful tactic for improving focus and attentiveness in classroom settings, allowing teachers to spend their time more effectively. In addition to promoting engagement, healthy relationships, and general satisfaction, mindfulness techniques stress and build increased awareness, resilience, and emotional control [34,35]. To help students manage their anxiety and enhance their socioemotional functioning, mindfulness-based therapies have gained scientific validation in recent years [36]. Interventions designed to enhance mindfulness are structured to improve students' altruism, attentiveness, mental well-being, and overall sense of well-being. These interventions typically incorporate meditation and various techniques aimed at elevating awareness in the present moment, managing challenging thoughts and emotions, and fostering a sense of non-judgmental acceptance towards oneself, others, and the world [37,38]. Unquestionably, self-regulation of attention and nonjudgmental experience awareness are the two main components of mindfulness. Sharpening awareness of one's current experiences in terms of feelings, ideas, and physical sensations is a necessary part of developing self-regulation of attention. Conversely, nonjudgmental awareness promotes traits like curiosity, openness, and recognition of these experiences, which in turn helps to improve emotional regulation by lowering reactivity [39].

Furthermore, greater learning outcomes and increased memory capacity have been linked to mindfulness techniques. They have been shown to reduce stress and raise test scores, which enhances students' coping mechanisms and academic achievement [40,41]. These findings show how practicing mindfulness might improve children's overall well-being and academic achievement [42]. Indeed, Students who engage in mindfulness practices have shown a significant improvement in their exam scores when compared to students who do not utilize these techniques [43]. Mindfulness is argued to be a highly beneficial strategy for reducing students' anxiety levels and increasing their focus, ultimately leading to more active engagement in the academic learning process [44]. Moreover, mindfulness is a strategy that assists learners by being more conscious of educational circumstances rendering them more engaged in education [45].

A rising corpus of empirical research highlights the importance of mindfulness as an essential life skill for every learner. According to this study, mindfulness may improve pupils' general well-being [46,47]. Cultivating awareness of the mind, body, and emotions is the core of mindfulness practices, which support an individual's holistic growth [48]. Additionally, a substantial amount of comparative and experimental data supports the use of mindfulness treatments to raise student engagement [14]. Studies have shown that college students who get these types of therapies report feeling less anxious, under pressure, and emotionally uncomfortable in addition to feeling more confident and self-assured [49]. Based on the findings of an investigation carried out by Bellinger, DeCaro, and Ralston [50], mindfulness raises students' awareness of the learning context and helps them to be engaged in learning more deeply.

Furthermore, as pointed out by Ager, Albrecht, and Cohen [51], mindfulness has the potential to make students more relaxed. This results in their increased satisfaction with their learning and studies. In the same vein, new research reveals that effective mindfulness programs undertaken by school teachers pave the way for the noticeable enhancement of students' well-being, as well as a decrease in their anxiety [52]. To the best knowledge of the researcher, the vast majority of studies have focused on engagement and burnout among EFL teachers rather than learners and regardless of the extensive range of inquiries undertaken to date on the role of mindfulness in the process of learning [53], not much research has been done so far on the role of this construct on learners' engagement and burnout. Indeed, on the whole, no research has sought to shed light on whether mindfulness can play the role of a mediator between these two constructs, i.e. students' engagement and burnout. As a result, given the gap in the literature in this regard, some research efforts should be done to further review the power of mindfulness in helping students enhance their engagement while reducing their burnout in the EFL context.

2. Review of literature

2.1. Mindfulness

The concept of mindfulness has its origins in the Sanskrit term 'Smrti,' which can be translated as "something remembered" [54]. Mindfulness is closely associated with increased activity in the brain regions responsible for regulating attention and fostering positive emotional states, including empathy and other prosocial emotions [55]. Individual traits that can be developed and cultivated throughout one's life [56]. In essence, mindfulness can be understood as (a) brief, periodic states of awareness, (b) more enduring, trait-like characteristics of awareness, or (c) a set of practices aimed at promoting the development of episodic states of mindfulness for a mindful and compassionate way of life [57]. According to Shapiro and White [47], mindfulness is defined as conscious attention to passing ideas, feelings, and behaviors via the integration of three essential elements: intention, attention, and attitude. Understanding what is being done, the reasoning behind it, or the result or vision is referred to as intention. Rather than ruminating on the past or planning for the future, attention entails a total focus on the here and now. The term attitude refers to the capacity to maintain compassion, open-mindedness, and curiosity; mindfulness activities include weaving these three elements together. The benefits of mindfulness practice include strengthened immune systems, enhanced cognitive functioning, longer attention spans, and enhanced emotional regulation [58]. Mindfulness is entrenched in self-control theory [59]. Enriching learners' skill of identifying their stress-motivated behavior and then fluctuating their behavior towards their independence could raise their level of ability to manage anxiety which could bring about more enthusiasm and consequently their engagement. In addition, according to Fredrickson's Broaden-and-Build theory [60], positive emotions have a beneficial impact on both physical and mental well-being, ultimately leading to increased engagement. By practicing mindfulness, individuals can improve their ability to concentrate on important matters and others. This increased positive emotion can lead to greater engagement and ultimately improve their academic performance [61].

Moreover, mindfulness fosters general well-being and may even increase emotional sensitivity in some people. It develops a calm, concentrated mind that is skilled at encouraging creativity, happiness, and resilience through regular practice [62]. Students are more likely to meet objectives, improve target skills, and pinpoint areas of concentration when they are given the chance to practice mindfulness in the classroom. This increased drive and involvement transform the classroom atmosphere, encouraging introspection, creating meaning, and streamlining the learning process. In a perfect mindful classroom, teachers support their students as they reassemble meaning, consider their experiences, and make the most of their education [63].

2.2. Engagement

Engagement plays a pivotal role in L2 learners' actual success [18]. It has been revealed to be susceptible to both personal and context-bound factors [64]. The engagement of learners is a critically important aspect of classroom teaching and instruction, and it stands as a significant determinant when evaluating the academic achievement of students [65]. Learners' engagement represents the constructive energy exhibited in the context of educational and intellectual aspects as they partake in the academic experience within classroom teaching and instruction [66]. Learners' engagement is greatly influential in educational psychology about academic satisfaction and internal inspiration and it is pliable, related to stimulus and positive academic results, and can be increased as a reaction to mediation [67]. Students' engagement can come prior to academic achievement or be a consequence of academic achievement, thereby making it specifically important for weak or hardworking students [68]. An increased engagement on the part of students brings about positive outcomes including academic success, positive self-image, job opportunities, increased satisfaction with one's life, and an increase in students' well-being, in particular, concerning the students who belong to racial and cultural minorities, and the learners suffering from low socioeconomic status and economic conditions [5]. In the same way, the concept of engagement, concerning both learners and educators, has been acknowledged as a crucial factor in combating boredom during the language learning process [30,69,70].

L2 students' engagement is regarded as a multidimensional concept including behavioral, emotional, cognitive, and agentic [13, 19]. Behavioral engagement has to do with the learners' tendency to be off-task and refrain from making any efforts; that is, the learners become quick rather than passive [71]. Such learners involve themselves in the learning activities without any delay in their engagement. It is completely different from disengagement in that students only do just enough to get by, and give up whenever they run into a problem, challenge, or failure. Emotional engagement involves the destructive experience caused by some emotions and feelings that lead to an increase in energy and organization in a learning context, which in turn results in pleasure and motivation, respectively. These learners find the learning task very consistent, clear, or emotionally interesting. Cognitive engagement has to do with the application of only effective and structured strategies during a learning period. Agentic engagement concerns the reflexive and joint reaction to instruction as it is given [72].

2.3. Burnout

In line with Maslach and Leiter [73], burnout comprises the following three interdependent elements: Emotional exhaustion, depersonalization, and Poor individual achievement. Individual ineffectiveness refers to one's perception of being less useful and capable in their career. It has to do with a negative evaluation of their job presentation and the negatively perceived aspects of their profession [74]. Emotional exhaustion can foreshadow burnout and the perceived emotional void due to job stress, controversial debates, lack of comfort, and job overload [75]. Individuals may find these circumstances very exhausting and lack enough strength and excitement to deal with daily challenges in their careers [29]. Depersonalization is defined as a feeling of apathy and indifference

about one's work and the people who receive the service. Indeed, those suffering from depersonalization tend to negatively perceive their work, as well as those with whom they engage in the workplace [74].

2.4. Related studies

Ying [76] indicated that mindfulness diminishes the power of one of the "negative" aspects of burnout which is exhaustion, which is pertinent to practices in theoretical situations among learners. It is believed that if people are passionately tired, they feel worn out and exhausted through exposure to stressors. Erbe and Lohrmann [77] have researched the efficacy of mindfulness and a review of the related studies in this domain in which a large number of adolescents attended, and it specifies that mindfulness reliably yields noteworthy consequences as a result of its constructive effects. For example, despair, anxiety, and stress are lessened thanks to mindfulness. Takiguchi [78] preserved that mindfulness can be a current method in augmenting language learners' achievement and encouraging teachers' socio-emotional competency. He recommended four one-day sessions over four to five weeks, through online courses including directed teachings in mindfulness meditation rehearses, yoga, and group debates. It was proved that such programs develop both English proficiency and the natural capability to respond to stress and burnout more efficiently while improving mindfulness in daily life and regular homework in performing English. Wang and Liu [79] conducted a study on the impact of mindfulness on EFL students, as well as how the implementation of mindful learning strategies contributed to their success. Involving 24 Chinese students, the findings revealed that EFL learners were able to assume control over their education by utilizing mindful approaches. Through this, they were able to establish a comfortable learning atmosphere inside the classroom while enhancing their learning processes, igniting creativity, and boosting intellect. In a related study, Fallah [80] investigated how mindfulness affects individuals' anxiety levels when communicating in English. The results showed a negative association between higher mindfulness levels and English language anxiety. Furthermore, the capability to remain present and mindful at higher degrees was once again a predictor of anxiety levels and performance in the English as a foreign language field. After exposing the experimental group to 45-min mindfulness sessions each week for a total of eight weeks, Langer, Schmidt, Aguilar-Parra, Cid, and Magni [81] discovered noteworthy decreases in stress and anxiety levels. A study conducted by Skelly and Estrada-Chichon [82] delves into the potential benefits of mindfulness for enhancing the skill of regulating attention, emotion, behavior, and thinking among young adults, which in turn could lead to success in the EFL domain. The analysis of 11 academic studies published in scientific journals in 2016, which employed quantifiable data-gathering methods, pointed out that mindfulness could significantly enhance the skills of students owing to its ability to decrease levels of stress and anxiety.

Tran, Vo-Thanh, Soliman, Ha, and Van Pham [83] examined the function of mindfulness in decreasing anxiety, hopelessness, and stress of learners and how self-compassion and well-being could mediate the links between mindfulness and these mental health conditions. Therefore, 560 Vietnamese students completed the related questionnaires. The results clarified that self-compassion and well-being serially mediated the relationships between mindfulness and nervousness, stress, and depression. Besides, in another study, Yalçın, Can, Mançe Çalışır, Yalçın, and Çolak [84] to detect covert profiles of COVID-19 fear, depression, apprehension, stress, mindfulness, and resilience among learners. As a result, 506 students from various universities participated and the results specified significant relations among the variables. Findings have shown that 46 % of the learners were categorized into the high COVID-19 fear and average mental symptoms profile. Likewise, 38 % of them were recognized as having low mental symptoms and high mindfulness and resilience. Furthermore, 16 % of them were categorized as having high COVID-19 fear, mental symptoms, and low mindfulness and resilience.

3. Conclusion

The primary dimensions of an individual's ability to manage and perceive the needs of others are encapsulated in the concept of mindfulness. Mindfulness is believed to enhance educators' capacity to create environments that cater to students' requirements [85]. Mindfulness exhibits a positive correlation with the emotional and behavioral engagement of learners, their connection to the class, involvement, gratitude, and self-efficacy. It can be concluded that those who are mindful run into less nervousness and are inclined to participate in rational supervision which is in line with the self-determination theory (SDT). As this theory states, people with a great level of mindfulness are more likely to act in ways that are accompanied by their ideologies. As a result, they are more inclined to control their emotions and gratify the difficulties that can lead to less burnout [86–88]. Consistent with the SDT theory, practicing mindfulness can enhance one's ability to control their behavior independently. This, in turn, can lead to increased consistency, decreased problems, heightened satisfaction, and reduced anxiety [89]. According to Weinstein, Brown, and Ryan [90], individuals who exhibit a higher level of mindfulness tend to effectively manage their anxiety by adopting self-approved and well-thought-out decisions. Based on the review, teaching mindfulness lets students decrease or even reduce pressure, stress, and deep thinking and improves their well-being and self-confidence [91]. By focusing on people's well-being, mindfulness can form a constructive sense that assists learners' cognitive and emotional steadiness. It can finally lead to higher accountability and enthusiasm for learners for their educational success which can eventually reduce their tension and grow their engagement. Indeed, learners with mindfulness will experience a higher enjoyment of the learning procedure, which can then guide learners to engagement and higher learning functioning.

Mindfulness, by encouraging focused attention on tasks and fostering innovative perspectives, is believed to have a positive association with student engagement. It is reasonable to assume that mindfulness is linked to constructive emotional and behavioral engagement among students, as suggested [92]. Mindfulness improves focus and awareness in educational contexts, helping instructors utilize their time and students become more present. This method promotes self-awareness. Mindfulness increases student

engagement and creates a favorable learning environment, according to Minkos et al. [93]. Moreover, mindfulness reduces grief, stress, and anxiety and improves well-being by increasing adaptive coping skills [94]. Mindful learners who show dynamic involvement, in addition to respect for numerous prospects and views for doing coursework and a presence to what is happening in the present state, are inclined to be engaged more in the learning path. As the important support of the positive impact of mindfulness, it can be determined that it can improve engagement and accordingly grow learners with high degrees of engagement and less burnout. Mindfulness, as suggested by Han and Wang [95], may positively correlate with engagement. This association arises from the idea that mindfulness encourages a heightened focus on tasks and innovative perspectives. Consequently, mindfulness is presumed to be constructively related to students' emotional and behavioral engagement. Mindfulness may improve task focus and creativity, which may boost student engagement. There is strong evidence that mindfulness boosts engagement. Thus, mindfulness should be taught in schools to prepare children for active engagement in our fast-paced world with the skills they need. The present review concludes that teaching mindfulness can improve student engagement in the classroom and English language learning success based on the large body of evidence supporting its benefits.

4. Implications and future directions

This analysis provides findings that may be implemented in different ways, with major consequences for school leaders, educators, and teacher trainers. It emphasizes the value of mindfulness and recommends that teachers, teacher candidates, and educational institutions look at ways to incorporate engagement and mindfulness into the curriculum to increase students' involvement in class. This may result in the creation of tactics and interventions that improve learning environments and benefit teachers as well as students in the long run. They need to confirm the concept that teaching mindfulness is like a shield for educators who are hugely worried about their manner of education in the classroom. Therefore, academics and policy-makers have to conduct mindfulness-based interferences as a section of academic programming and apply mindfulness within the class, such that learners are provided with skills that lead to achievement during their academic efforts and within their lives to turn into complete people in society. In addition, syllabus designers can develop books and activities according to mindfulness-based education to improve learners' burnout and assist them in learning a proper class setting.

The research findings have important applications for school administration. For instance, learners' engagement in the learning procedure connotes educator-learner reciprocation in educational activities. It is recommended that educators concentrate more on learners' mindfulness in their routine lives because having respect for learners' inner moods and behavioral functioning is important. Specifically, counselors have to offer adequate mental care for learners under pressure within the learning procedure. When learners' mindfulness is enhanced, they can assess everything to grow their learning potential and have higher engagement in classrooms. In addition, educators have to make students aware of the notion that mindfulness is required both in their lives and in the learning progression. Through mindfulness, learners can pay more attention to what they face, particularly, during their presence at school. By encouraging mindfulness within classes, educators can prevent burnout, which influences learners' health regularly in their lives and for future generations. It is also argued that mindfulness interference improves emotional and mental resilience, allowing experts to create an unjudged appreciation that refers to directing the current encounter and lacking any comment about it. Kabat Zinn [39] believes that unjudged appreciation leads to non-accountability, or lack of response to that current encounter, instead of admitting its occurrence.

To provide learners with an effective strategy for preventing burnout and fostering a deeper understanding of mindfulness, interventions can be incorporated into university or program guidance, courses, and extracurricular activities. This integration can enhance learners' self-awareness and their overall quality of life. Mindfulness-based interventions can be seamlessly integrated into courses by including brief mindfulness sessions before the commencement of each educational session. While these may seem like ambitious goals, they have the potential to enhance achievement, reduce burnout, and improve educational performance by mitigating stress and anxiety. The mindful learner, characterized by heightened awareness, consciousness, and acceptance of the challenges of their tasks, can exhibit increased energy, dedication, and engagement in their academic pursuits. This demonstrates a connection and alignment with the vitality of their educational journey, as opposed to experiencing burnout.

The integration of mindfulness practices in the classroom has the potential to enhance and promote learners' engagement, ultimately contributing to their academic success. Educator training programs and teaching tools may include mindfulness practices in a variety of lesson ideas. To assist students in comprehending how being mindful may result in increased engagement, better academic achievement, lower anxiety, and less burnout, instructors must provide them with both theoretical and practical mindfulness education. Teachers should not regard mindfulness as an add-on but rather smoothly incorporate it into every part of the teaching experience [96]. An educational environment should be created where mindfulness plays a significant role in the future by introducing mindfulness training into teacher education programs. Numerous academic disciplines have shown a great deal of interest in mindfulness techniques because they may be effective tools for stress management, improving well-being, and raising engagement in a variety of settings. As a method of intervention, mindfulness may assist students in gaining life skills that promote successful learning outcomes and enhanced general well-being. Moreover, syllabus designers might create educational resources and assignments incorporating mindfulness techniques to alleviate student burnout and facilitate effective learning within an encouraging classroom setting.

According to the literature, EFL learners experience tension and stress during language use at all levels of proficiency which leads to burnout that also prevents their engagement, so by providing great mindfulness techniques for learners, they will feel less anxiety throughout language learning that results in more engagement [97]. Interventions designed to enhance mindfulness are structured to improve students' altruism, attentiveness, mental well-being, and overall sense of well-being. These interventions typically

incorporate meditation and various techniques aimed at elevating awareness in the present moment, managing challenging thoughts and emotions, and fostering a sense of non-judgmental acceptance towards oneself, others, and the world. The literature review indicates that mindfulness programs can affect stress reduction, thoughtfulness improvement, and learners' engagement, each can be taken into account in further empirical studies. Further research can be conducted to take into account the problems regarding age, academic level, and gender. Regarding the outcome that mindfulness works as a mediator, it is recommended that future studies use experimental methods to approve the review and to have a perfect comprehension of such issues and their applications in the EFL setting.

Additional information

No additional information is available for this paper.

Ethics declarations

Review and/or approval by an ethics committee was not needed for this study because the type of this manuscript is a review article, this study doesn't include any animal and human research.

Data availability

No data was used for the research described in the article.

Funding

CRediT authorship contribution statement

Juan Wu: Writing – original draft. **Qifeng Zhao:** Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

[1] A. Derakhshan, Revisiting research on positive psychology in second and foreign language education: trends and directions, Language Related Research 13 (5) (2022) 1–43, https://doi.org/10.52547/LRR.13.5.1.
[2] J.M. Dewaele, X. Chen, A.M. Padilla, J. Lake, The flowering of positive psychology in foreign language teaching and acquisition research, Front. Psychol. 10 (2019) 2128.
[3] P.D. MacIntyre, T. Gregersen, S. Mercer, Setting an agenda for positive psychology in SLA: theory, practice, and research, Mod. Lang. J. 103 (1) (2019) 262–274.
[4] K. Shao, L.J. Nicholson, G. Kutuk, F. Lei, Emotions and instructed language learning: proposing a second language emotions and positive psychology model, Front. Psychol. 11 (2020) 2142.
[5] Y.L. Wang, A. Derakhshan, L.J. Zhang, Researching and practicing positive psychology in second/foreign language learning and teaching: the past, current status and future directions, Front. Psychol. 12 (2021), 731721, https://doi.org/10.3389/fpsyg.2021.731721.
[6] Y.L. Wang, H.F. Guan, Exploring demotivation factors of Chinese learners of English as a foreign language based on positive psychology, Rev. Argent. Clin. Psicol. 29 (2020) 851–861, https://doi.org/10.24205/03276716.2020.116.
[7] Y. Wang, Investigating the interplay of Chinese EFL teachers' proactive personality, flow, and work engagement, J. Multiling. Multicult. Dev. (2023), https://doi.org/10.1080/01434632.2023.2174128.
[8] N. Mkonto, Monitoring Student engagement: retention officers' experiences at the cape peninsula university of technology, J. Student Afr. Afr. 6 (1) (2018) 65–76, https://doi.org/10.24085/jsaa.v6i1.3066.
[9] Z. Pan, Y. Wang, A. Derakhshan, Unpacking Chinese EFL students' academic engagement and psychological well-being: the roles of language teachers' affective scaffolding, J. Psycholinguist. Res. (2023), https://doi.org/10.1007/s10936-023-09974-z.
[10] D.F. Chang, W.C. Chien, W.C. Chou, Meta-analysis approach to detect the effect of student engagement on academic achievement, ICIC Express Letters 10 (10) (2016) 2241–2246.
[11] A. Derakhshan, J. Fathi, M. Pawlak, Kruk, Classroom social climate, growth language mindset, and student engagement: the mediating role of boredom in learning English as a foreign language, J. Multiling. Multicult. Dev. (2022), https://doi.org/10.1080/01434632.2022.2099407.
[12] A. Derakhshan, J. Fathi, Grit and foreign language enjoyment as predictors of EFL learners' online engagement: the mediating role of online learning self-efficacy, The Asia-Pacific Education Researcher (2023), https://doi.org/10.1007/s40299-023-00745-x.
[13] H. Lei, Y. Cui, W. Zhou, Relationships between student engagement and academic achievement: a meta-analysis, SBP (Soc. Behav. Pers.) 46 (3) (2018) 517–528, https://doi.org/10.2224/sbp.7054.
[14] J.A. Fredricks, A.L. Reschly, S.L. Christenson, Interventions for student engagement: overview and state of the field, in: B.V. Elsevier (Ed.), Handbook of Student Engagement Interventions, Elsevier, 2019, pp. 1–11, https://doi.org/10.1016/B978-0-12-813413-9.00001-2.
[15] L. Hu, Y. Wang, The predicting role of EFL teachers' immediacy behaviors in students' willingness to communicate and academic engagement, BMC Psychol 11 (2023) (2023) 318, https://doi.org/10.1186/s40359-023-01378-x.

[16] F. Wang, Z. Ye, On the role of EFL/ESL teachers' emotion regulation in students' academic engagement, Front. Psychol. 12 (2) (2021) 758–860, https://doi.org/10.3389/fpsyg.2021.758860.

[17] P. Hiver, A.H. Al-Hoorie, J.P. Vitta, J. Wu, Engagement in language learning: a systematic review of 20 years of research methods and definitions, Lang. Teach. Res. (2021), 13621688211001289.

[18] Student engagement in the language classroom, in: P. Hiver, A.H. Al-Hoorie, S. Mercer (Eds.), Clevedon: Multilingual Matters, 2021.

[19] S. Mercer, Z. Dörnyei, Engaging Language Learners in Contemporary Classrooms, Cambridge University Press, Cambridge, 2020.

[20] M.E.P. Seligman, M. Csikszentmihalyi, Flow and the foundations of positive psychology, in: M.E.P. Seligman, M. Csikszentmihalyi (Eds.), Positive Psychology: an Introduction, Springer, Dordrecht, 2014, pp. 279–298, https://doi.org/10.1037//0003-066X.55.1.5.

[21] A. Derakhshan, M. Kruk, M. Mehdizadeh, M. Pawlak, Activity-induced boredom in online EFL classes, ELT J. 76 (1) (2022) 58–68, https://doi.org/10.1093/elt/ccab072.

[22] M. Kruk, M. Elahi Shirvan, M. Pawlak, T. Taherian, E. Yazdanmehr, A longitudinal study of the subdomains of boredom in practical English language classes in an online setting: a factor of curves latent growth modeling, J. Multiling. Multicult. Dev. (2021) 1–15.

[23] Z. Dörnyei, Towards a better understanding of the L2 learning experience, the Cinderella of the L2 motivational self-system, Stud. Sec. Lang. Learn. Teach. 9 (1) (2019) 19–30, https://doi.org/10.14746/ssllt.2019.9.1.2.

[24] M.R. Reyes, M.A. Brackett, S.E. Rivers, M. White, P. Salovey, Classroom emotional climate, student engagement, and academic achievement, J. Educ. Psychol. 104 (3) (2012) 700, https://doi.org/10.1037/a0027268.

[25] F. Schultze-Lutter, B.G. Schimmelmann, S.J. Schmidt, Resilience, risk, mental health and well-being: associations and conceptual differences, Eur. Child Adolesc. Psychiatr. 25 (5) (2016) 459–466, https://doi.org/10.1007/s00787-016-0851-4.

[26] P. Iannello, A. Mottini, S. Tirelli, S. Riva, A. Antonietti, Ambiguity and uncertainty tolerance, need for cognition, and their association with stress. A study among Italian practicing physicians, Med. Educ. Online 22 (1) (2017), 1270009, https://doi.org/10.1080/10872981.2016.1270009.

[27] C. Li, A positive psychology perspective on Chinese EFL students' trait emotional intelligence, foreign language enjoyment and EFL learning achievement, J. Multiling. Multicult. Dev. 41 (3) (2020) 246–263, https://doi.org/10.1080/01434632.2019.1614187.

[28] H. Moghadam, A. Ghanizadeh, B. Ghonsooly, Differences in EFL learners' burnout levels and receptive language skills with regard to the mindfulness-based instruction, Explorations in English Language and Linguistics 8 (2) (2020) 185–219, https://doi.org/10.2478/exell-2021-0004.

[29] J. Fathi, V. Greenier, A. Derakhshan, Self-efficacy, reflection, and burnout among Iranian EFL teachers: the mediating role of emotion regulation, Iran. J. Lang. Teach. Res. 9 (2) (2021) 13–37, https://doi.org/10.30466/IJLTR.2021.121043.

[30] A. Derakhshan, D. Doliński, K. Zhaleh, M.J. Enayat, J. Fathi, A mixed-methods cross-cultural study of teacher care and teacher-student rapport in Iranian and Polish University students' engagement in pursuing academic goals in an L2 context, System 106 (2022), 102790, https://doi.org/10.1016/j.system.2022.102790.

[31] C. Maslach, W.B. Schaufeli, M.P. Leiter, Job burnout, Annu. Rev. Psychol. 52 (2) (2001) 397–422, https://doi.org/10.1146/annurev.psych.52.1.397.

[32] E. di Pierdomenico, M. Kadziolka, A. Miller, J. Carlin, Mindfulness correlates with stress and coping in university students, Can. J. High Educ. 47 (2) (2017) 121–134.

[33] K.W. Brown, R.M. Ryan, J.D. Creswell, Mindfulness: theoretical foundations and evidence for its salutary effects, Psychol. Inq. 18 (3) (2007) 211–237, https://doi.org/10.1080/10478400701598298.

[34] W.B. Britton, N.E. Lepp, H.F. Niles, T. Rocha, N.E. Fisher, J.S. Gold, A randomized controlled pilot trial of classroom-based mindfulness meditation compared to an active control condition in sixth-grade children, J. Sch. Psychol. 52 (3) (2014) 263–278, https://doi.org/10.1016/j.jsp.2014.03.002.

[35] Y. Wang, A. Derakhshan, H. Rahimpour, Developing resilience among Chinese and Iranian EFL teachers: a multi-dimensional cross-cultural study, J. Multiling. Multicult. Dev. (2022), https://doi.org/10.1080/01434632.2022.2042540.

[36] M. O'Driscoll, S. Byrne, A. McGillicuddy, S. Lambert, L. Sahm, The effects of mindfulness-based interventions for health and social care undergraduate students, Psychol. Health Med. 22 (1) (2018) 851–865.

[37] Y. Wang, A. Derakhshan, M. Azari Noughabi, The interplay of EFL teachers' immunity, work engagement, and psychological well-being: evidence from four Asian countries, J. Multiling. Multicult. Dev. (2022), https://doi.org/10.1080/01434632.2022.2092625.

[38] R. Weis, S.D. Ray, T.A. Cohen, Mindfulness as a way to cope with COVID-19-related stress and anxiety, Counsell. Psychother. Res. J. 21 (1) (2021) 8–18, https://doi.org/10.1002/capr.12375.

[39] J. Kabat-Zinn, Mindfulness-based interventions in context: past, present, and future. Clinical psychology, Science and Practice 10 (2) (2003) 144–156, https://doi.org/10.1093/clipsy/bpg016.

[40] R.W. Roeser, E. Skinner, J. Beers, P.A. Jennings, Mindfulness training and teachers' professional development: an emerging area of research and practice, Child Development Perspectives 6 (3) (2012) 167–173, https://doi.org/10.1111/j.1750-8606.2012.00238.x.

[41] Y.L. Wang, Y.X. Wang, Z.W. Pan, J.L. Ortega-Martín, The predicting role of EFL students' achievement emotions and technological self-efficacy in their technology acceptance, The Asia-Pacific Education Researcher (2023), https://doi.org/10.1007/s40299-023-00750-0.

[42] I. Dundas, T. Thorsheim, A. Hjeltnes, P.E. Binder, Mindfulness based stress reduction for academic evaluation anxiety: a naturalistic longitudinal study, J. Coll. Student Psychother. 30 (2) (2016) 114–131, https://doi.org/10.1080/87568225.2016.1140988.

[43] L.S. Bakosh, R.M. Snow, J.M. Tobias, J.L. Houlihan, C. Barbosa-Leiker, Maximizing mindful learning: mindful awareness intervention improves elementary school students' quarterly grades, Mindfulness 7 (1) (2016) 59–67, https://doi.org/10.1007/s12671-015-0387-6.

[44] M. Napoli, P.R. Krech, L.C. Holley, Mindfulness training for elementary school students, J. Appl. Sch. Psychol. 21 (1) (2005), https://doi.org/10.1300/J370v21n01-05, 99 - 25.

[45] Y.T. Lin, The interrelationship among psychological capital, mindful learning, and English learning engagement of university students in Taiwan, Sage Open 10 (1) (2020), https://doi.org/10.1177/2158244020901603.

[46] J. Galante, G. Dufour, M. Vainre, A.P. Wagner, J. Stochl, A. Benton, N. Lathia, E. Howarth, P.B. Jones, A mindfulness-based intervention to increase resilience to stress in university students: a pragmatic randomised controlled trial, Lancet Public Health 3 (2) (2018) 72–81, https://doi.org/10.1016/S2468-2667(17)30231-1.

[47] S. Shapiro, C. White, Mindful Discipline: A Loving Approach to Setting Limits and Raising an Emotionally Intelligent Child, New Harbinger Publications, Oakland, CA, 2014.

[48] S. Chen, D. Murphy, The mediating role of authenticity on mindfulness and wellbeing: a cross cultural analysis, Asia Pac. J. Counsell. Psychother. 10 (1) (2019) 40–55, https://doi.org/10.1080/21507686.2018.1556171.

[49] H. Motie, M. Heidari, F. Bagherian, F. Zarani, Providing mindfulness-based educational package for evaluating academic procrastination, Iran. J. Psychiatry Clin. Psychol. 25 (1) (2019) 26–41, https://doi.org/10.32598/ijpcp.25.1.25.

[50] D.B. Bellinger, M.S. DeCaro, P.A. Ralston, Mindfulness, anxiety, and high-stakes mathematics performance in the laboratory and classroom, Conscious. Cognit. 37 (2) (2015) 123–132, https://doi.org/10.1016/j.concog.2015.09.001.

[51] K. Ager, N.J. Albrecht, M. Cohen, Mindfulness in schools research project: exploring students' perspectives of mindfulness—what are students' perspectives of learning mindfulness practices at school? Psychology 6 (7) (2015) 896, https://doi.org/10.4236/psych.2015.67088.

[52] E. Gold, A. Smith, I. Hopper, D. Herne, G. Tansey, C. Hulland, Mindfulness-based stress reduction (MBSR) for primary school teachers, J. Child Fam. Stud. 19 (2) (2010) 184–189, https://doi.org/10.1007/s10826-009-9344-0.

[53] Y. Wang, A. Derakhshan, Z. Pan, F. Ghiasvand, Chinese EFL teachers' writing assessment feedback literacy: a scale development and validation study, Assess. Writ. 56 (2023) 1–16, https://doi.org/10.1016/j.asw.2023.100726.

[54] M. Williams, E. Leumann, C. Cappeller, Etymologically and Philologically Arranged with Special Reference to Cognate Indo-European Languages, Bharatiya Granth Niketan, New Delhi, 2004.

[55] A. Lutz, H.A. Slagter, J. Dunne, R.J. Davidson, Attention regulation and monitoring in meditation, Trends Cognit. Sci. 12 (4) (2008) 163–169, https://doi.org/10.1016/j.tics.2008.01.005.

[56] M.T. Greenberg, C. Turksma, Understanding and watering the seeds of compassion, Res. Hum. Dev. 12 (3–4) (2015) 280–287, https://doi.org/10.1080/15427609.2015.1068060.

[57] R.J. Davidson, Empirical explorations of mindfulness: conceptual and methodological conundrums, Emotion 10 (2) (2010) 8–11, https://doi.org/10.1037/a0018480.

[58] D. Rechtschaffen, The Ways of Mindful Education: Cultivating Well-Being in Teachers and Students, Norton, New York, NY, 2014.

[59] R. Brown, The perceived impact of mindfulness instruction on pre-service elementary teachers, Child Educ. 93 (2) (2017) 136–146, https://doi.org/10.1080/00094056.2017.1300492.

[60] B.L. Fredrickson, Gratitude, like other positive emotions, broadens and builds, in: R.A. Emmons, M.E. McCullough (Eds.), The Psychology of Gratitude, Oxford University Press, New York, NY, 2004, pp. 145–166, https://doi.org/10.1093/acprof:oso/9780195150100.003.0008.

[61] P.A. Van den Hurk, F. Giommi, S.C. Gielen, A.E. Speckens, H.P. Barendregt, Greater efficiency in attentional processing related to mindfulness meditation, Q. J. Exp. Psychol. 63 (2) (2010) 1168–1180, https://doi.org/10.1080/17470210903249365.

[62] S.K. Greenland, The Mindful Child, Free Press, New York, NY, 2010.

[63] Y. Wang, W. Xu, F. Luo, Emotional resilience mediates the relationship between mindfulness and emotion, Psychol. Rep. 118 (3) (2016) 725–736, https://doi.org/10.1177/0033294116649707.

[64] A. Mystkowska-Wiertelak, Teachers' accounts of learners' engagement and disaffection in the language classroom, Lang. Learn. J. (2020), https://doi.org/10.1080/09571736.2020.1800067. Epub ahead of print 26 August 2020.

[65] W.L.Q. Oga-Baldwin, Acting, thinking, feeling, making: the engagement process in language education, System 86 (2019) 102–120.

[66] G.D. Kuh, J. Kinzie, J.H. Schuh, E.J. Whitt, Fostering student success in hard times. Change, The magazine of higher learning 43 (4) (2011) 13–19.

[67] M.J. Furlong, S.L. Christenson, Engaging students at school and with learning: a relevant construct for all students, Psychol. Sch. 45 (3) (2008) 365–368, https://doi.org/10.1002/pits.20302.

[68] A.L. Reschly, S.L. Christenson, Jingle, jangle, and conceptual haziness: evolution and future directions of the engagement construct, in: S.L. Christenson, A. L. Reschly, C. Wylie (Eds.), Handbook of Research on Student Engagement, Springer, New York, NY, 2012, pp. 3–19, https://doi.org/10.1007/978-1-4614-2018-7_1.

[69] A. Derakhshan, [Review of the book Positive psychology in second and foreign language education, in: Katarzyna Budzińska, Olga Majchrzak (Eds.), ELT Journal, 2022, pp. 304–306, https://doi.org/10.1093/elt/ccac002, 76(2.

[70] M. Kruk, M. Pawlak, M. Elahi Shirvan, T. Taherian, E. Yazdanmehr, Potential sources of foreign language learning boredom: AQ methodology study, Stud. Sec. Lang. Learn. Teach. 12 (1) (2022) 37–58.

[71] H. Jang, E. Kim, J. Reeve, Why students become more engaged or more disengaged during the semester: a self-determination theory dual-process model, Learn. InStruct. 43 (3) (2016) 27–38, https://doi.org/10.1016/j.learninstruc.2016.01.002.

[72] J. Reeve, How students create motivationally supportive learning environments for themselves: the concept of agentic engagement, J. Educ. Psychol. 105 (2) (2013) 579–595, https://doi.org/10.1037/a0032690.

[73] C. Maslach, M.P. Leiter, Understanding the burnout experience: recent research and its implications for psychiatry, World Psychiatr. 15 (2) (2016) 103–111, https://doi.org/10.1002/wps.20311.

[74] M.P. Leiter, A.B. Bakker, C. Maslach, The contemporary context of job burnout, in: M.P. Leiter, A.B. Bakker, C. Maslach (Eds.), Burnout at Work: A Psychological Perspective, Psychology Press, Hove, Sussex, 2014, pp. 9–17.

[75] E.M. Skaalvik, S. Skaalvik, Teacher self-efficacy and teacher burnout: a study of relations, Teach. Teach. Educ. 26 (2) (2010) 1059–1069.

[76] Y.W. Ying, The buffering effect of psychological detachment against emotional exhaustion among social work students, J. Relig. Spiritual. Soc. Work Soc. Thought 27 (2) (2008) 131–150, https://doi.org/10.1080/15426430802114051.

[77] R. Erbe, D. Lohrmann, Mindfulness meditation for adolescent stress and well-being: a systematic review of the literature with implications for school health programs, Health Educ. 47 (2) (2015) 12–19.

[78] H. Takiguchi, Implementing mindfulness into teaching English as a second language at the colleague level: an exploratory study, Departmental Bulletin Paper 50 (3) (2015) 127–142.

[79] Y. Wang, C. Liu, Cultivate mindfulness: a case study of mindful learning in an English as a foreign language classroom, IAFOR journal of education 4 (2) (2016) 141–155.

[80] N. Fallah, Mindfulness, coping self-efficacy and foreign language anxiety: a mediation analysis, Int. J. Energy Econ. Pol. 37 (6) (2019) 745–756, https://doi.org/10.1080/01443410.2016.1149549.

[81] I.A. Langer, C. Schmidt, M.J. Aguilar-Parra, C. Cid, A. Magni, Mindfulness and the promotion of mental health in adolescents: effects of an intervention in the educational context, Chilean Medical Journal 145 (3) (2017) 476–482, https://doi.org/10.4067/S0034-98872017000400008.

[82] K.J. Skelly, J.L. Estrada-Chichon, Mindfulness as a coping strategy for EFL learning in education, Int. J. InStruct. 14 (4) (2021) 965–980, https://doi.org/10.29333/iji.2021.14356a.

[83] M.A.Q. Tran, T. Vo-Thanh, M. Soliman, A.T. Ha, M. Van Pham, Could mindfulness diminish mental health disorders? The serial mediating role of self-compassion and psychological well-being, Curr. Psychol. (2022), https://doi.org/10.1007/s12144-022-03421-3.

[84] İ. Yalçın, N. Can, Ö. Mançe Çalışır, S. Yalçın, B. Çolak, Latent profile analysis of COVID-19 fear, depression, anxiety, stress, mindfulness, and resilience, Curr. Psychol. 41 (1) (2022) 459–469, https://doi.org/10.1007/s12144-021-01667-x.

[85] N.P. Rickert, E.A. Skinner, R.W. Roeser, Development of a multidimensional, multi-informant measure of teacher mindfulness as experienced and expressed in the middle school classroom, IJBD (Int. J. Behav. Dev.) 44 (1) (2020) 5–19.

[86] K.W. Brown, R.M. Ryan, The benefits of being present: mindfulness and its role in psychological wellbeing, J. Pers. Soc. Psychol. 84 (2) (2003) 822–848.

[87] Y. Guo, Y. Wang, J. Ortega-Martín, The impact of blended learning-based scaffolding techniques on learners' self-efficacy and willingness to communicate, Porta Linguarum 40 (2) (2023) 253–273, https://doi.org/10.30827/portalin.vi40.27061.

[88] R. Zhi, Y.S. Wang, Y.L. Wang, The role of emotional intelligence and self-efficacy in EFL teachers' technology adoption, The Asia-Pacific Education Researcher (2023), https://doi.org/10.1007/s40299-023-00782-6.

[89] S. Shannon, D. Hanna, G. Leavey, T. Haughey, D. Neill, G. Breslin, The association between mindfulness and mental health outcomes in athletes: testing the mediating role of autonomy satisfaction as a core psychological need, Int. J. Sport Exerc. Psychol. (2020) 1–16, https://doi.org/10.1080/1612197X.2020.1717578.

[90] N. Weinstein, K.W. Brown, R.M. Ryan, A multi- method examination of the effects of mindfulness on stress attribution, coping, and emotional well-being, J. Res. Pers. 43 (3) (2009) 374–385, https://doi.org/10.1016/j.jrp.2008.12.008.

[91] K.A. Schonert-Reichl, E. Oberle, M.S. Lawlor, D. Abbott, K. Thomson, T.F. Oberlander, A. Diamond, Enhancing cognitive and social-emotional development through a simple-to-administer mindfulness-based school program for elementary school children: a randomized controlled trial, Dev. Psychol. 51 (1) (2015) 52–66, https://doi.org/10.1037/a0038454.

[92] D. Goleman, Introduction to Building Emotional Intelligence: Techniques for Cultivating Inner Strength in Children, Sounds True, Boulder, 2008.

[93] M.L. Minkos, S.M. Chafouleas, M.A. Bray, T.P. LaSalle, Brief report: a preliminary investigation of a mindful breathing intervention to increase academic engagement in an alternative educational setting, Behav. Disord. 43 (4) (2018) 436–443, https://doi.org/10.1177/0198742917740870.

[94] A. Masuda, E. Tully, The role of mindfulness and psychological flexibility in somatization, depression, anxiety, and general psychological distress, Journal of Evidence-Based Complementary & Alternative Medicine 17 (1) (2012) 66–71, https://doi.org/10.1177/2156587211423400.

[95] Y. Han, Y. Wan g, Investigating the correlation among Chinese EFL teachers' self-efficacy, reflection, and work engagement, Front. Psychol. 12 (2021), 763234, https://doi.org/10.3389/fpsyg.2021.763234.

[96] N. Bailey, J. Owen, R. Chambers, C. Hassed, A. Jones, A. Wootten, Evidence Based Guidelines for Mindfulness in Schools: A Guide for Teachers and School Leaders, Smiling Mind, 2018.

[97] P. Charoensukmongkol, The role of mindfulness in reducing English language anxiety among Thai college students, Int. J. Biling. Educ. BiLing. 22 (4) (2019) 414–427, https://doi.org/10.1080/13670050.2016.1264359.