TESL-EJ Teaching English as a Second or Foreign Language
The Electronic Journal for English as a Second Language

L2 Learners' Understanding of Achievement Emotions and Emotion Regulation Strategies: Contributions of a Longitudinal Emotion Regulation Initiative

August 2022 – Volume 26, Number 2

https://doi.org/10.55593/ej.26102a4

Mohammad N. Karimi
Department of Foreign Languages, Kharazmi University, Tehran, Iran
<karimi_mn@khu.ac.ir>

Mohammad R. Hashemi
Department of Foreign Languages, Kharazmi University, Tehran, Iran
<mrhashemi@khu.ac.ir>

Parastoo Alizadeh
Department of Foreign Languages, Kharazmi University, Tehran, Iran
<std_alizadehoghyanou@khu.ac.ir>

Abstract

Developing L2 learners' emotional balance through adaptive regulation is a significant determinant of successful learning. Despite the recent surge of interest in emotion regulation (ER) programs, research on L2 learners' ER strategies is surprisingly underdeveloped. To address this gap, the current qualitative study explored ten L2 learners' understanding of achievement emotions and ER strategies throughout a longitudinal ER-oriented training course. Data were collected from four rounds of semi-structured interviews and diaries at different junctures of time. Data analysis revealed that the most frequent ER strategies in the pre-training phase were distraction and suppression, which showed a gradual decrease in the post-training phases. However, the use of self-regulated learning strategies and reassurance had the lowest frequency, showing a great improvement during the post-training phases. Additionally, the students grew in regulating their emotions across four major areas: (a) sufficient perceived control over negative emotions in high-stakes situations, (b) use of explicit ER strategies, (c) efficient use of competency-oriented strategies, and (d) decreased distraction as a function of negative simulators. The study provides implications for employing ER-based training to transform students' negative emotional experiences into positive emotions.

Keywords: Achievement emotions, emotion regulation intervention, L2 learners, language achievement, longitudinal ER

Parallel with research on academic/achievement emotions (e.g., enjoyment, hope, anxiety) in general education (e.g., Harley et al., 2019; Pekrun, 2006), studies on second language acquisition have highlighted the importance of a wide spectrum of emotions (e.g., anxiety, enjoyment) in the process of second language (L2) learning (e.g., Karimi & Fallah, 2021; Dewaele, 2015; Dewaele et al., 2019). In Pekrun et al.'s (2017) terms, emotions that are linked to students' "achievement activities and their success and failure outcomes" (p. 2), are referred to as achievement emotions (AEs). Defined in this way, emotions central to L2 learning, which are intimately connected to learners' success or failure in language achievement (Dewaele, 2015), are also considered as AEs. The influence of such emotions on L2 learning seems to be exerted by "directing attentional processes and the use of cognitive resources, inducing and sustaining student interest in the learning material, triggering different modes of information processing, and facilitating/impeding students' engagement and self-regulation of learning" (Shao et al., 2019, p. 2).

In addition, the "flowering of positive psychology" in L2 learning and teaching has influenced emotion research or "emotionology" in the past two decades (Dewaele et al., 2019, p. 1). In fact, both positive and negative emotions are crucial in language achievement as they influence learners' cognitive resources and attentional processes (Shao et al., 2019). However, these two typologies of emotions function differently and thus affect learning in distinct ways. According to the broaden-and-build theory, negative emotions "restrict experience and narrow down focus", whereas positive emotions "broaden experience and build emotional and cognitive resources for the future in a spiraling, self-perpetuating fashion" (Bielak & Mystkowska-Wiertelak, 2020a, p. 2). A careful examination of the L2 emotion literature shows that the extant body of research has predominantly focused on emotions in isolation (e.g., Helgesen, 2016, Jin & Zhang, 2018), and few studies have described the symbiosis among differently valued emotions (e.g., Dewaele & Dewaele, 2017).

Bielak and Mystkowska-Wiertelak (2020a) argued that the complex interactions between positive and negative emotions reflect the need for striking an emotional balance through regulation. In L2 contexts, emotion (self-) regulation strategies are subcategorized under self-regulated learning strategies (Oxford, 2017), in that they enhance learners' accomplishment of L2 tasks through promoting their positive emotions, motivation, and task engagement, as well as interacting with learners' initial cognitive task appraisals. This point complies with Gross's (2015) process-oriented emotion regulation (ER) model, which focuses on the endeavors to influence the what, when, and how of experiencing or expressing emotions. In fact, Gross's (1998, 2014) Process Model of ER (PMER) classifies ER strategies under five distinctive strategies: situation selection, situation modification, attentional deployment, cognitive change, and response modulation. These strategies have been primarily impacted by the stages in the emotion-generative process. However, due to the domain-generality of Gross's model, an integrative framework of ER was proposed by Harley and his colleagues (2019), with the aim of integrating "propositions about the generation of emotions from CVT [the control-value theory] with propositions about how emotions are regulated and types of ER strategies from PMER" (p. 106).

The stages of Gross's ER model dialectically interact with the processes of triggering emotions, which have been introduced in the CVT. According to the CVT, the implementation and potential effectiveness of ER strategies can be influenced by the core features of each phase of the emotion-generative process (Harley et al., 2019). Consequently, studying the dynamic interdependence between learners' emotions and ER strategies is deemed essential. A scrutiny of the ER literature shows that despite the surge of interest in ER studies across various disciplines such as health (e.g., Webb et al., 2012) and education (e.g., Burić et al., 2016; Seibert et al., 2017), research on L2 learners' ER strategies is underdeveloped, as also argued

by Bielak and Mystkowska-Wiertelak (2020a). In addition, while Gross (2014) argued that training individuals can help them engage more effectively in regulating their emotions, little research has examined the influence of ER-based programs on L2 learners' understanding of AEs and ER strategies. Hence, the present research aims to address the above gaps and contribute to the knowledge base of L2 learners' emotions.

Literature Review

Achievement Emotions and Emotion Regulation

The Control-Value Theory (CVT) considers emotions as multifaceted psychological processes that are comprised of interrelated dimensions of affect, cognition, motivation, and physiology. The theory is grounded in appraisals of control and value as proximal antecedents of Achievement Emotions (AEs), being established around a three-componential taxonomy, namely, object focus (activity vs. outcome), valence (positive vs. negative), and activity focus (activating vs. deactivating) (Pekrun et al., 2007). These components motivated the introduction of four major subcategories of AEs, namely, positive activating (e.g., enjoyment, hope, and pride) and positive deactivating (e.g., relaxation) versus negative activating (e.g., anxiety, anger, and shame), and negative deactivating (e.g., boredom and hopelessness) achievement emotions. Enjoyment, relaxation, and boredom are activity-focused; however, emotions such as hope, pride, anger, anxiety, shame, and hopelessness are described as outcome-focused.

Achievement emotions influence students' motivation, cognitive resources, self-regulation, use of learning strategies, and academic achievement (Pekrun et al., 2007). However, these individual factors are influenced distinctively by the four aforementioned subcategories of AEs. For instance, positive activating emotions tend to enhance both intrinsic and extrinsic motivation, promote self-regulation, and facilitate employing flexible learning strategies, implying positive academic performance. In contrast, negative deactivating emotions are presumed to undermine motivation and successful information processing, which exerts negative effects on performance (Pekrun et al., 2011). There seem to be more complicated interactions for the two other AE classifications. For example, negative activating emotions such as anger, anxiety, and shame are claimed to reduce intrinsic motivation, on the one hand, and trigger high levels of extrinsic motivation in order to impede failure through using "more rigid learning strategies like rehearsal" (Pekrun et al., 2011, p. 38), on the other hand. However, students' overall academic performance would be negatively influenced by such emotions. This is also true for positive deactivating emotions such as relief.

The dynamics of associations among AEs and their impacts on students' academic achievement have been empirically investigated by a number of scholars. For example, Dewaele and MacIntyre (2014) conducted a large-scale study that investigated a number of individual factors influencing language learners' enjoyment and anxiety. The factors ranged from age and gender to education level, perceived level of language proficiency, and the number of languages that the students' study or already know. It was found that female students, younger learners, and those with perceptions of less proficiency reported lower levels of enjoyment, but higher degrees of anxiety. More importantly, the independence of these two emotions was confirmed, highlighting the point that anxiety and enjoyment are "not opposite ends of the same dimension" (p. 261). Therefore, the absence/low level of one of these two distinct dimensions does not necessarily imply the presence/high level of another one. The authors also stressed the need to strike a balance between anxiety and enjoyment as ingredients of the "emotional mix" by raising students' awareness of their context-specific emotions and boosting teachers' emotional skills (p. 262).

Additionally, Galmiche (2018) explored the sources and consequences of L2-related shame as a frequently experienced emotion among French language learners through adopting a qualitative approach. Two broad themes along with their sub-themes were extracted as the sources of shame, namely learner-internal (personality characteristics: the shame-prone self as a sample sub-theme) and learner-external factors (sample sub-themes: corrective feedback, assessment, and treatment of errors). It was also found that shame-inducing situations could result in anxiety and nervousness. In addition, the internalization of shame over time, and cognitive functioning impairment were reported as negative results of L2-shame (for the complete list of the extracted sub-themes, see Galmiche, 2018). The author further emphasized the necessity of raising students' awareness of the sources and consequences of their shame, and highlighted the significance of training students to use "shame-reducing techniques" and "develop a sense of power and control over their future actions" (pp. 122–123).

A meta-analysis of 29 studies was conducted by Tze et al. (2015) to scrutinize the associations between boredom and students' study strategies/behaviors, motivation, and academic performance in light of Pekrun's (2006) CVT. While a significant and modest negative association between boredom and academic outcomes was observed, the effect sizes of boredom-motivation and boredom-study strategies/behaviors were higher than those of boredom-achievement. It was also found that this negative association was stronger among secondary students than college students, and in class-related situations compared to studying situations, which might be explained by varying levels of cognitive maturity among different age groups, and lower levels of perceived control in class than in studying, respectively. As for the implications, the authors suggested using "cognitive-appraisal strategies such as identifying meaning in a boring class" (p. 22) so as to alleviate this unpleasant emotion. In addition, it was recommended that educators provide quality instruction through designing appropriate curriculum and learning contexts that induce less boredom.

Further examination of L2 learner emotions reveals other empirical research in this area, such as Khajavy et al.'s (2018) multi-level SEM analysis of the role of emotions and classroom environment in willingness to communicate, and Reilly et al.'s (2019) quantitative investigation into university students' AEs and studying them in terms of gender, proficiency level, and first-semester versus higher semester's differences. However, recent studies emphasize that more qualitative research is required to be undertaken with longitudinal (as suggested by Yang et al., 2021), and experimental (as recommended by Khajavi et al., 2018) nature in the line of L2 emotion studies.

Studies on learners' emotions provide evidence for the significance of regulating them through adopting adaptive ER strategies. As mentioned earlier, in the L2 context, ER strategies are subcategorized under L2 learning strategies (Bielak & Mystkowska-Wiertelak, 2020c), which are dynamic, multifaceted, and teachable techniques that can be consciously and creatively adopted by learners to self-regulate their socio-cognitive and emotional dimensions with the aim of improving their language performance (Oxford, 2017). Thus, in L2 settings, ER strategies deal with self-regulating learners' emotional dimensions, being generally in line with Gross's (1998, 2014) PMER.

The empirical research on L2 learners' ER strategies has been mostly dominated by regulating negative emotions, particularly anxiety (e.g., Gkonou, 2018; Hurd & Xiao, 2010). Perhaps the most comprehensive and in-depth research on L2 learners' ER strategies is that of Bielak and Mystkowska-Wiertelak's (2020a) exploratory study, in which they identified a broad range of learners' ER strategies and their frequency (e.g., acceptance [19.0%], distraction [7.1%], suppression [<0.5%], social support [6.4%]) using a vignette methodology. Except for two strategies (i.e., doing nothing and competence enhancement), all the extracted strategies were

placed under Gross's process-based ER strategies. As for implications, it was suggested to conduct more studies to increase both learners' and teachers' awareness of student-directed ER strategies as well as inform teacher practice in light of robust theoretical foundations. The present study is one such attempt in training students through ER strategies longitudinally.

The Present Study

The theoretical background presented above highlights that emotions are significant L2 learning dimensions that substantially shape learners' success or failure in language achievement. Moreover, the previous research converges on the fact that learners need training to better regulate their emotions and come to a deeper understanding of the role of emotions in their learning process. In fact, considering the significant role of AEs in students' educational performance (Dewaele et al., 2019), there has been a recent call for studies that tap into how training L2 learners in regulating their emotions shapes their learning process (Bielak & Mystkowska-Wiertelak, 2020b, 2020c). To this aim, a small number of studies have proposed classroom activities and strategies to assist learners in regulating their emotions (e.g., Gregersen & MacIntyre, 2014; Helgesen, 2016; Oxford, 2017); however, the strategies suggested in the previous research are limited in scope focusing either positive or negative emotions, the efficacy of which has not been corroborated empirically. This study aims to bridge this gap by qualitatively examining how an ER-based training course contributed to L2 learners' ER strategies and AEs. More specifically, the study addressed the following questions:

RQ1. What emotion regulation strategies do L2 learners adopt in academic situations?

RQ2. How does L2 learners' understanding of ER strategies change in response to a longitudinal ER training initiative?

Method

Context and Participants of the Study

We conducted the research in a private single-sex (all-females) language institution in Iran, where each institutional term consisted of twelve 95-min sessions that were held twice a week. All the classes were conducted online due to the COVID-19 pandemic. The curriculum followed a predominantly Communicative Language Teaching (CLT) approach, laying more emphasis on improving learners' communicative competence. Both teachers and students were required to speak English in the classes. Students with more than four sessions of absence had to redo the same course.

Among the 37 emotionally dysfunctional students in this study, who were purposefully selected based on their low scores on Pekrun et al.'s (2005) achievement emotions questionnaire (AEQ), with the aim of attending an ER training workshop, only 10 students (S1–S10) aged 21–28 agreed to participate voluntarily in our longitudinal exploratory inquiry. All of them spoke Persian as their first language and were from middle-class families. Three had master's degrees and the rest had bachelor's degrees. Their language proficiency level was intermediate based on the institutional records. We obtained all the participants' informed consent prior to the study, ensuring their anonymity throughout the study.

Research Design and Procedure

Our research design was framed in a narrative inquiry of learners' experiences of their L2 emotions, and the strategies they employed to regulate such emotions prior to and after the ER courses. According to Creswell and Guetterman (2021), in narrative inquiry, "the researcher often writes into the reconstituted story a chronology of events describing the individual's past,

present, and future experiences lodged within specific settings or contexts" (p. 518). Since emotions are strongly context-bound (Gross, 2015), and due to the threatening nature of most achievement situations such as language classrooms, we found narrative inquiry as quite a flexible qualitative approach that enabled us to examine the students' developmental growth in their experienced emotions and ER strategies through analyzing their stories as narrated by autobiographical notes and interviews.

The study lasted for five 6-week terms (7.5 months in total). Pre-training interviews and diary collections were performed prior to the workshops. Participants attended two series of online ER training courses at one-term intervals. Both series of workshops were conducted on Google Meet, which is a video communication service developed by Google. The participants joined the sessions through an invitation link that was sent to their G-mails. Each series of workshops lasted for eight two-hour sessions, in which the ER intervention program was implemented in light of Gross's (2007, 2014) PMER, Harley et al.'s (2019) integrated ERAS model, Webster and Hadwin's (2015) self-regulated learning perspective, and Bielak and Mystkowska-Wiertelak's (2020a, 2020c) list of ER strategies for language learners. Different ER (sub)strategies were highlighted in each workshop, and students were assigned to think and reflect on the aims of each session, do relevant tasks varying from written to practical exercises, and then report them to the whole class in the following session.

ER Workshops. The first session began with explaining the theoretical assumptions of AEs including definition and categories as well as the necessity of ER. In addition, the goals of the workshop were introduced, and the interactive nature of the workshop was emphasized. Learners were asked to make a list of emotions that they experienced in the language classroom during the following week as their assignments. In the second session, after checking the assignments, each category of AEs (positive vs. negative along with their sub-divisions), and their affective, motivational, cognitive, and physiological dimensions were described. Time frame, object focus, and high versus low perceived control and value were also explained and examples were presented. As for their assignments, learners attempted to categorize the emotions that they reported.

In the third session, after students talked about their assignments, the first ER strategy (situation selection) was introduced. Students discussed study, classroom, and test-taking situations that may trigger pleasant and unpleasant emotions. Then, avoiding situations was introduced as a maladaptive ER strategy. As homework, the students were asked to prepare daily notes of their emotions, the provoking situations, and the physiological, mental, and behavioral consequences of each emotion during the following week. Sessions four and five focused on evaluating the student's degree of emotional vulnerability and their ER skills through exposure to a number of positive and negative pictures. They filled out a self-evaluation form specifying the degree in a range between 0–10 along with the duration of emotional arousal. Further, the emotional vulnerability form was completed in which the students' degree of vulnerability from 0 to 10 and the possible reasons was recorded. Students were then asked to recognize and prioritize their reactions to the emotions and the ER strategies that they employed. In the end, they were asked to fill out the self-evaluation forms by focusing on the emotional reactions triggered by academic situations during the following week and the degree to which each reaction would be effective in regulating the emotions.

In the sixth session, first, learners' self-evaluation forms were checked. Then, reappraisal was introduced and the role of mental processing and thoughts, beliefs, and memories in the generation, maintenance, and increase/decrease of emotional responses was discussed. Learners were encouraged to recognize their erroneous appraisals of study, classroom, and test-taking situations, and then, suggest their tactics to reappraise the situations. They were sent a

list of reappraisal techniques to implement during the following week (see Harley et al. (2019); Bielak & Mystkowska-Wiertelak (2020) for the list of tactics). Session seven started with discussing the students' frequently used reappraisal tactics and checking their reports of the significance of each technique from 0–10. Then, response modulation through altering the behavioral and physiological consequences of emotional reactions was introduced. Learners discussed their tendency toward expressing or suppressing their emotional responses. Then, Jacobson's relaxation techniques, through tightening and relaxing specific areas of the body to increase their awareness of their physical sensations, wer- described and practiced. Opposite action, as one of the skills of dialectical behavioral therapy (DBT) was also introduced (see Gross, 2014). As for their assignment, the students were invited to practice the skills and report their level of efficiency in the following session. In the final session, after a class discussion on response modulation skills, an overall review of all the ER strategies was presented. Learners discussed their most and least preferred strategies and prepared a schematic daily plan in order to achieve their goals in the upcoming semester.

At the outset of the second institutional semester, the second online interview and diary collection was conducted, followed by classroom instruction as set in the curriculum. The results obtained from the interviews and diaries (see data collection) revealed that the students needed to be equipped with further strategies to strike more balance between their positive and negative emotions with the aim of reinforcing their language achievement (e.g., see S10, third interview in the findings section). Therefore, the second eight-session ER workshop was conducted in the third semester. The first session started with a brief review of the first workshop. Then, attentional deployment was introduced, and learners were instructed on how to stop rumination and redirect their attention from unpleasant emotions through improving their awareness of unpleasant emotions, controlling their automatic thoughts with no judgment, and devoting selective attention to pleasant emotions. Different sensory stimuli and their effective role in redirecting attention were also discussed, and learners were assigned to practice the attention redirection skills during the week and score each skill's effectiveness between 0–10. In the second session, learners' self-evaluation forms were checked, and they shared their experiences in a class discussion. Afterward, situation modification through enhancing learning competencies was presented as an efficient ER strategy, and avoidance strategies were introduced as intensifiers of unpleasant emotions. At the end of the session, the students were invited to make a list of their achievement goals in L2 learning across different situations and focus on the situations which must be changed, improved, or created in order to achieve those goals.

Sessions three to six involved introducing different (sub)strategies (e.g., self-regulated learning strategies, metacognitive strategies, task engagement, problem-solving skills, time management) that learners could adopt to develop their competencies (see Webster & Hadwin, 2015; Bielak & Mystkowska-Wiertelak, 2020a, 2020c). Learners were encouraged to practice these sub-strategies in order to change or improve the problematic achievement situations they might confront. In the next two sessions, a review of ER strategies was presented, and learners discussed the strategies that they preferred to use in order to attain achievement goals. The data collection procedure through interviews and diaries was carried out at the beginning of the fourth and fifth terms.

Data Collection

This study is part of a larger project that adopted a mixed methods design to explore the contributions of an ER-based course to L2 learners' AEs and their use of ER strategies. Data for this study come from the qualitative section of the project. We collected data from four rounds of interviews and students' diaries.

Interviews

The interview protocol involved a number of open-ended questions, which examined the participants' understanding of the effectiveness of ER intervention on their AEs, and their perceptions about how ER instruction might be effective in tackling negative achievement emotions as well as up-regulating positive emotions. Four online one-on-one semi-structured interviews (40 interviews in total), each lasting on average 20 minutes per learner, were conducted through Google Meet with 10 learners in Persian (L1) to developmentally track how their understanding of the AE generation/regulation changes. The interview questions were developed based on Pekrun et al.'s (2005) AEQ and Burić et al.'s (2016) Academic Emotion Regulation Questionnaire (AERQ). They were also in line with Bielak and Mystkowska-Wiertelak's (2020a, 2020c) list of L2-specific ER strategies. To ensure the credibility of interview questions, each question was expert-checked by two PhD holders in TEFL who were experienced in emotion and ER research and was then piloted on two learners. The experts finalized the questions by removing the areas of ambiguity and modifying the wording of some questions. The students' responses to the questions were audio-recorded and transcribed verbatim for further analysis (see appendix A for the list of the interview questions).

Diaries. As for the diaries, the students were asked to prepare autobiographical notes on their emotions, the provoking situations, and the physiological, mental, and behavioral consequences of each emotion. They were also required to detail the ER strategies they adopt to down-regulate negative emotions and up-regulate positive emotions to fulfill their achievement goals. The diaries were written in Persian (either typed or hand-written) and were given to the third researcher online (i.e., e-mail or messaging programs such as WhatsApp and Telegram). Forty diaries (4 diaries per learner) were delivered in total. Figure 1 illustrates the schematic representation of data collection at each stage of the workshops.

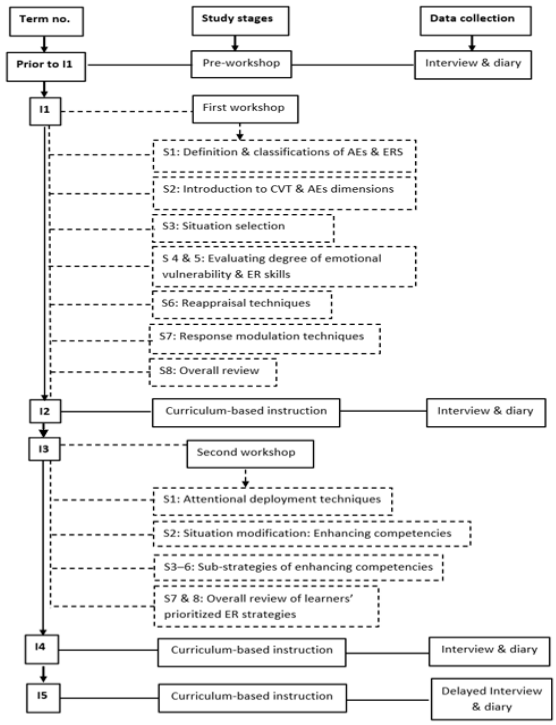

Figure 1. The Stages of Study and Data Collection

Data Analyses

A combination of content analysis and thematic analysis (see Bielak & Mystkowska-Wiertelak, 2020a) was used for analyzing the data. Content analysis involved quantifying the emotion

categories and ER strategies reported in the students' interviews and diaries at different stages of the study by calculating the numbers and percentages of references to them as well as the numbers and percentages of the learners who reported them. Thematic analysis, which is defined as "a method for identifying, analyzing and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79), was used as the qualitative analytic method due to its flexibility, theoretical freedom, and potential to provide a rich description of data. We thematically analyzed the data from both interviews and diaries manually by following the six phases: "(1) data familiarization; (2) generating initial codes; (3) searching for themes; (4) reviewing themes; (5) defining and naming themes; and (6) producing the report" (see Braun & Clarke, 2006, p. 87 for more details on the steps of thematic analysis).

More specifically, the procedure involved identifying the recurrent themes with respect to different categories of AEs based on Pekrun et al.'s (2007) list of AEs as well as establishing the (sub)categories of ER strategies with reference to Gross's (1998, 2014) broad ER classifications, and Bielak and Mystkowska-Wiertelak's (2020a) more detailed list of ER strategies. To answer the second research question, the same steps of thematic analysis were applied to explore the recurring patterns regarding students' understandings of their ER strategies prior to and after each round of the ER training. The whole procedure of data analysis involved collaboration and joint discussions among the researchers to refine the coding process. To enhance the credibility of the analyses, one of the researchers who expert-checked the interview questions, coded randomly selected extracts from both the interviews and diaries and the inter-rater reliability between the results obtained by the researcher and our finalized codes were estimated through Cohen's kappa coefficient (K = .80), which showed a satisfactory level of agreement.

Findings

As mentioned previously, four rounds of online interviews and diary collections were conducted to explore the learners' emotions and ER strategies, and to investigate how the learners' understanding of the effectiveness of the ER training changed developmentally. Table 1 shows the learners' AEs reported in their interviews and diaries at four stages of our study.

The findings showed that positive AEs generally represented a gradually increasing trend from pre-training to the post-training phases, whereas negative AEs (both activating and deactivating) showed a gradually decreasing trend in the course of training. More specifically, the least frequent emotion reported in interviews and diaries during the pre-training phase was pride (2.64%), which showed a gradual increase in the post-training phases: from 6.41% in post-training 1 to 10.90% in post-training 2 to 13.82% in the delayed phase. On the other hand, the most frequent emotion prior to the training was shame (22.12%), showing a gradual decrease throughout the training: from 18.34% in post-training 1 to 14.99% in post-training 2 to 12.90 in the delayed phase. Moreover, the least frequent emotion in the post-training phases was anger (5.90%) in post-training 2 which decreased to 4.60% in the delayed phase. For example, in her first diary, S3 refers to a variety of negative emotions:

> *I feel ashamed* (shame) *of not getting good marks in my last exam. I had studied a lot, but when I sit an exam, I get stressed* (anxiety) *and I cannot concentrate well…. I have lost all my hope* (hopelessness)*…. The more I try, the less I achieve!*

After the second ER workshop, the same student's diary shows a decrease in her negative emotions:

> *I barely get anxious in exams* (less anxiety)*, but when I get, I take a deep breath and try to focus on the questions only…I try to be optimistic toward my exam results* (hope), *and*

Table 1. References to Learners' Achievement Emotions Reported in Pre-Training, Post-Training, and Delayed Phases

	Pre-training			Post-training 1			Post-training 2			Delayed		
Achievement emotions	**Inter-view**	**Diary**	**No. of Ls**	**Inter-view**	**Diary**	**No. of Ls**	**Inter-view**	**Diary**	**No. of Ls**	**Inter-view**	**Diary**	**No. of Ls**
Positive Emotions												
Enjoyment	7 (3.09) [a]	6 (2.65)	2	15 (6.88)	11 (5.04)	4	17 (7.72)	12 (5.45)	7	19 (8.75)	14 (6.45)	7
Hope	6 (2.65)	5 (2.21)	1	12 (5.50)	(4.58)	5	15 (6.81)	14 (6.36)	8	16 (7.37)	16 (7.37)	9
Pride	**4 (1.76)**	**2 (.88)**	**1**	**9 (4.12)**	**5 (2.29)**	**3**	**13 (5.90)**	**11 (5)**	**5**	**14 (6.45)**	**16 (7.37)**	**5**
Other [b]	3 (1.32)	4 (1.76)	1	5 (2.29)	4 (1.83)	2	5 (2.27)	4 (1.81)	2	6 (2.76)	4 (1.84)	2
Negative Emotions												
Anxiety	20 (8.84)	19 (8.40)	10	17 (7.79)	11 (5.04)	5	16 (7.27)	12 (5.45)	3	13 (5.99)	10 (4.60)	3
Anger	11 (4.86)	11 (4.86)	8	9 (4.12)	7 (3.21)	3	**7 (3.18)**	**6 (2.72)**	**1**	**5 (2.30)**	**5 (2.30)**	1
Shame	**21 (9.29)**	**29 (12.83)**	**9**	**18 (8.25)**	**22 (10.09)**	**4**	**15 (6.81)**	**18 (8.18)**	**2**	**13 (5.99)**	**15 (6.91)**	2
Hopelessness	18 (7.96)	21 (9.29)	10	14 (6.42)	19 (8.71)	5	13 (5.90)	17 (7.72)	2	10 (4.60)	16 (7.37)	1
Boredom	13 (5.75)	19 (8.40)	7	11 (5.04)	13 (5.96)	5	10 (4.54)	11 (5)	4	11 (5.06)	9 (4.14)	3
Other [b]	4 (1.76)	3 (1.32)	1	3 (1.37)	3 (1.37)	1	2 (.90)	3 (1.36)	1	3 (1.38)	2 (.92)	1
	n_{total} = 226			n_{total} = 218			n_{total} = 220			n_{total} = 217		

a Numbers in brackets show the percentages.
b Other categories of emotions such as interest and gratitude for positive and fear and sadness for negative emotions were rarely observed in our data.

> *it mostly works… I know learning a new language is not easy, but I never lose hope* (less hopelessness) (Third diary).

Table 2 shows the ER strategies extracted from the learners' interviews and diaries prior to and after the workshops. As can be seen, in general, the frequency of positive AEs and adaptive ER strategies gradually increased during the training. The two most frequent ER strategies in the pre-training phase were distraction (20.26%) and suppression (18.24%), which showed a gradual decrease in the post-training phases: distraction from 17.20% in post-training 1 to 7.90% in post-training 2 to 7.20% in the delayed phase, and suppression from 9.73% in post-training 1 to 5.60% in post-training 2 to 4.72% in the delayed phase. On the other hand, use of self-regulated learning strategies had the lowest frequency (1.68%), which showed a good improvement during post-training phases (from 1.93% in post-training 1 to 4.84% in post-training 2 to 5.21% in the delayed phase. In the same way, reassurance as one sub-category of

Table 2. References to Learners' ER (Sub)Strategies Reported in Pre-Training, Post-Training, and Delayed Phases

ER Strategies	Pre-training			Post-training 1			Post-training 2			Delayed		
	Interview	Diary	No. of Ls	Interview	Diary	No. of Ls	Interview	Diary	No. of Ls	Interview	Diary	No. of Ls
Situation Selection												
Skipping or leaving an exam/a boring or difficult session (M [b])	8 (2.70) [a]	10 (3.37)	8	5 (1.62)	6 (1.94)	5	3 (.76)	2 (.51)	2	2 (.49)	2 (.49)	2
Internal Situation Modification												
Use of effective exam-taking strategies (A [c])	4 (1.35)	5 (1.68)	2	6 (1.94)	4 (1.29)	3	12 (3.06)	9 (2.29)	8	11 (2.73)	11 (2.73)	9
Goal-setting (A)	5 (1.68)	7 (2.36)	3	5 (1.62)	5 (1.62)	3	11 (2.80)	8 (2.04)	8	13 (3.23)	9 (2.23)	8
Use of self-regulated learning strategies (A)	3 **(1.01)**	2 **(.67)**	1	4 **(1.29)**	2 (.64)	2	11 **(2.80)**	8 **(2.04)**	7	12 **(2.98)**	9 **(2.23)**	8
Redirecting Attention (Attentional deployment)												
Positive visualization (A)	8 (2.70)	6 (2.02)	1	9 (2.92)	7 (2.27)	3	21 (5.35)	28 (7.14)	10	27 (6.71)	24 (5.97)	10
Distraction (M)	28 **(9.45)**	32 **(10.81)**	10	25 **(8.11)**	28 (9.09)	4	13 **(3.31)**	18 **(4.59)**	2	12 **(2.98)**	17 **(4.22)**	2
Task focus (A)	6 (2.02)	3 (1.01)	2	5 (1.62)	4 (1.29)	3	13 (3.31)	14 (3.57)	8	12 (2.98)	17 (4.22)	8
Reappraisal												
Decreasing the value of an unpleasant result by accepting it (A)	4 (1.35)	6 (2.02)	1	9 (2.92)	13 (4.22)	5	22 (5.61)	14 (3.57)	8	23 (5.72)	18 (4.47)	9
Increasing the expectancies of success by reassuring oneself of the one's abilities (A)	5 **(1.68)**	3 **(1.01)**	1	11 **(3.57)**	7 (2.27)	6	21 **(5.35)**	17 **(4.33)**	10	23 **(5.72)**	16 **(3.98)**	10
Response Modulation												
Suppression (M)	23 **(7.77)**	31 **(10.47)**	10	17 **(5.51)**	13 (4.22)	4	13 **(3.31)**	9 **(2.29)**	2	11 **(2.73)**	8 **(1.99)**	2
Seeking social support (A)	14 (4.72)	16 (5.40)	4	21 (6.81)	18 (5.84)	7	24 (6.12)	19 (4.84)	9	24 (5.97)	21 (5.22)	9
Respiration (A)	11 (3.71)	17 (5.74)	2	31 (10.06)	25 (8.11)	7	35 (8.92)	32 (8.16)	10	33 (8.20)	35 (8.70)	10
Venting (M)	21 (7.09)	18 (6.08)	8	16 (5.19)	12 (3.89)	5	9 (2.29)	6 (1.53)	2	7 (1.74)	5 (1.24)	1
	n_{total} = 296			n_{total} = 308			n_{total} = 392			n_{total} = 402		

a Numbers in brackets show the percentages; b M stands for maladaptive. c A stands for adaptive.

appraisal was the second least frequent strategy prior to workshops (2.69%), showing an increase during the study (from 5.84% in post-training 1 to 9.68% in post-training 2 to 9.70% in the delayed phase). This finding reflects the significance of longitudinal ER training in improving competency-enhancing situation modification and reappraisal. For instance, S7 refers to a number of maladaptive ER strategies prior to the training:

> *I cannot overcome distraction while a student is presenting something in the class…That's embarrassing when they ask me about what the student said and I cannot respond* (maladaptive attentional deployment)*!... I try to hide my shame and anxiety* (suppression)*… That's why I usually skip such sessions* (maladaptive situation selection) (First diary).

After the second workshop, the same student shows an improvement in using adaptive ER strategies:

> *This term I set a goal* (Internal Situation Modification) *to focus more attention on what the teacher asks me to do during the class* (adaptive attentional deployment) *… I try my best to avoid the distracting thoughts…well, yesterday my classmate had a short lecture, and in the end, I was asked to share my understanding… I am proud that finally I managed it* (Third diary).

Additionally, thematic analyses of the interviews and diaries revealed fluctuations in the occurrence of four major themes in response to the second research question: (in)sufficient perceived control over negative emotions in high stakes situations, use of implicit vs. explicit ER strategies, (in)efficient use of competency-oriented strategies, increased vs. decreased distraction as a function of negative simulators.

(In)Sufficient Perceived Control Over Negative Emotions in High Stakes Situations

The analysis of the initial interviews and diary entries showed that all of the interviewees (S1–S10) suffered from a lack of perceived control over negatively valued emotions such as anxiety and anger, particularly in high-evaluative achievement situations (e.g., final exams). For instance, S4 stated: "*I feel terribly anxious when I remember that I have an English exam the next day"* (First interview). A similar point was reported by S6: "*One of the most stressful moments in the English class is when the teacher gives me the speaking test. Although I am familiar with the questions, my voice starts trembling. I cannot overcome it"* (First diary). In the first extract, S4 experienced anxiety as a negatively valued, prospective outcome emotion with low control. In the second extract, S6 reported anxiety as a concurrent activity emotion with a negative value and restricted control over it. These findings show that the students failed to adaptively regulate their unpleasant emotions due to their dysfunctional emotion regulation processes.

In the second interview and diary entries, which were conducted after the first ER workshop, the learners reported positive impacts of the ER workshop on increasing their self-awareness about experienced emotions in L2 settings, and the use of adaptive ER strategies in order to control the intensity and duration of unpleasant emotions. For instance, in the following extract, S2 states that her awareness of negative emotions was raised due to familiarity with how to reappraise a situation (i.e., exam condition), which has resulted in more control over the "unpleasant responses in unpleasant situations":

> *I used to have limited recognition of my emotions, which made it almost impossible to control them. I learned that reappraising the English exam as a non-life-and-death situation can decrease the intensity of my anxiety and increase control over it…. I perceive that my emotional responses in unpleasant situations are more controlled now* (Second interview).

Although all of the interviewees acknowledged the positive impacts of the ER workshop on the control of their negative emotional responses in L2 achievement settings, almost all of them stated that ER strategies require more time to be internalized in the long term. The results of the third and delayed interviews and diaries highlighted the significance of the longitudinal ER intervention for gradual development of adaptive ER strategies:

> *I think trying to accept my grammar and vocabulary mistakes and then reassuring myself that I am capable to improve my speaking skill are so efficient ER techniques. However, my experience of the first workshop showed that changing the way I am thinking about negative situations is the most challenging strategy for me, so, I learned to practice reappraisal constantly over time"* (S4, Third diary).

In the above extract, the two techniques of reappraisal (i.e., acceptance and reassurance) were perceived as the most difficult, yet as very efficient ER sub-strategies that require more time and effort to be mastered. Similar observations were made by the other students as well, which indicates the effect of time in learning how to regulate positive and negative emotions.

Use of Implicit Vs. Explicit ER Strategies

Data analysis also revealed that the ER strategies learners used before the ER training were mostly unconscious and implicit ER moves. For example, S5 stated: "*I have always found grammar lessons boring. Without realizing, my mind often starts wandering around more interesting topics, while I am listening to the teacher. Although this makes me feel less bored, I cannot make head or tail of the lesson!"* (First interview). In this excerpt, the learner directly refers to the unconscious adoption of redirecting attention due to boredom. However, she

digressed from the right path due to the automatic use of this strategy in a maladaptive manner, which can result in low classroom performance.

Direct instruction of ER strategies, however, helped learners avoid merely automatized and inherited emotional responses, and attempt to raise their awareness of the most appropriate ER strategies according to the particular achievement situation as the following extract indicates:

> *When I suddenly decide to skip the boring grammar session, I attempt to remind myself of the importance of grammar section in my final exam!... I focus more on long-term achievement goals now… I found the second ER workshop as a reinforcement package that increased the effectiveness of my previously learned strategies* (S10, Third interview).

The above extract represents boredom as a negatively valued concurrent activity emotion, and it highlights the significance of ER intervention in distinguishing between the learner's previous unconscious ER moves and the newly learned ER strategies in down-regulating boredom. The learner uses "remind myself of" to emphasize that he redirects his attention to pay focal attention to the lesson when instances of digression occur.

(In)Efficient Use of Competency-Oriented Strategies

The third theme was based on competency-enhancing situation modification. Learners' initial interviews and diaries revealed that they had limited knowledge of how to develop their competencies through adopting self-regulated learning strategies such as metacognitive strategies (e.g., goal setting, monitoring of progress, strategy use, and self-instruction), task engagement, surface processing or rehearsal, deep processing or elaboration, planning, time management, and task focus. For instance, S2 stated: *"I feel hopeless, because I always fail to set realistic goals for improving my English skills"* (First diary). Another learner indicated that: "*I cannot connect with the topics of the course book and I feel the tasks do not help me progress in English. So, I mostly feel bored and hopeless in the class!"* (S5, First interview). The former excerpt refers to the learner's low awareness of goal setting as a metacognitive strategy and the latter excerpt pertains to the lack of task engagement as a learning strategy.

On the other hand, the third and delayed interviews and diaries showed considerable improvements in raising learners' awareness of learning strategies:

The ER workshops familiarized me with different learning strategies. I practice deep processing and task engagement to boost my knowledge of English idioms and collocations. Now, I feel less anxious about new lessons and prouder about my previous success (S9, Delayed interview).

In the above extract, the learner emphasizes the positive contributions of ER intervention to competence-oriented regulation, which paved the way to down-regulate anxiety as a prospective negative outcome emotion and up-regulate pride as a retrospective positive emotion in classroom situations. These findings highlight the significance of the intervention program in helping the learners to develop a deeper understanding of their positive and negative emotions, and employ their learning from the program to develop conscious awareness of how emotions operate.

Increased Vs. Decreased Distraction as a Function of Negative Simulators

Before the training, the learners suffered from a severe lack of directed attention to the tasks they were dealing with in test-taking, studying, and classroom situations. For instance, S1 stated: "*That my classmates respond to exam questions quickly and leave the classroom soon always increases my anxiety and decreases my focus"* (First diary). S6 indicated: "*I feel*

hopeless when I cannot focus on my reading comprehension tasks attentively" (First interview). Here, S1 and S6 refer to circumstances in which they cannot direct their attention to the ongoing task, which has brought about negative emotions in them. Moreover, the extracts refer to anxiety and hopelessness as provoked due to maladaptive redirection of attention, emphasizing the key role of attentional deployment in emotion regulation.

The findings from the third round of data collection confirmed the positive effects of the ER workshops on decreasing learners' distraction and increasing focused attention to the tasks. S5 said:

> *I ignore my classmates' quick reactions to the exam questions and just focus on my own paper reminding myself that I aced my previous exam…When I confront a difficult reading task, I try not to get distracted by new vocabularies through focusing attention on the familiar words* (Third diary).

The above extract highlights the adaptive adoption of attentional deployment that leads to success in test-taking and classroom situations. Moreover, the learner uses "just focus on my own paper" to show his attentiveness to the assigned task. This point becomes also noticeable in the second part of the extract where the learner makes a comparison between familiar and unfamiliar words while reading, and his focal attention to the familiar words to avoid negative emotions.

Discussion

This study explored L2 learners' ER strategies and how the learners' understanding of ER strategies changes in response to longitudinal ER training. To this end, we conducted two rounds of ER training courses. The findings regarding the contributions of adaptive ER strategies (e.g., positive visualization, reappraisal, use of self-regulated strategies, respiration, task focus) to improving learners' experience of positive emotions and debilitating their experience of negative emotions are in line with the assumptions of Gross's (2015) domain-general PMER model and Harley et al.'s (2019) domain-specific integrative model. This finding suggests that ER strategies can intervene in each phase of emotion-generative processes (i.e., situation, attention, appraisal, and response). In addition, the direct instruction of ER strategies has been reported to be effective in creating students' emotional balance, enhancing their achievement, and promoting their well-belling (e.g., Oxford, 2017; Seibert et al., 2017; Webb et al., 2012).

As for the first research question, which dealt with exploring L2 learners' ER strategies, the results showed that all the students suffered from distraction and suppression before the ER program. Distraction belongs to the attention deployment category of ER strategies referring to "diverting attention from a [negative emotion] NE-inducing aspect of a situation to think of something else" (Bielak & Mystkowska-Wiertelak, 2020a, p. 10). Distraction is considere a maladaptive ER strategy in all achievement situations (studying, class, and test-taking), which "targets internal situation modification in terms of competence enhancement" (Harley et al., 2019, p. 116), as it hampers students' cognitive engagement with the task at hand. One reason for the high frequency of distraction among learners might be the situational nature of institutional performance in the Iranian context where students learn to compete with each other more than staying focused on their personal goals and learning through cooperation. This may impose more peer pressure, increasing their anxiety and anger. The ER training helped the learners to develop their positive visualizations toward the preceding or subsequent achievement situations and down-regulate anxiety and anger (Harley et al., 2019) rather than focusing on their failure and rumination, which can justify the decrease in the frequency of distraction in post-training phases.

In addition, suppression as a response-focused ER strategy was observed in all students prior to the training. As one of the most prevalent dysfunctional ER strategies, suppression involves "inhibiting the manifestation of an emotional response" (Bielak & Mystkowska-Wiertelak, 2020a, p. 10). Particularly, in more traditional socio-cultural settings such as Iranian educational contexts, students are inherently more prone to concealing their emotional reactions and avoid emotional release when and where appropriate. For example, learners may restrict their involvement in the classroom tasks rather than investing more efforts to modify the situation, which results in high levels of anxiety (Harley et al., 2019). It seems that direct instruction of learners to prevent suppression through relaxation techniques and opposite action helped them to practice appropriate emotional expression.

On one hand, reassurance and the use of self-regulated learning strategies were among the least frequently used ER sub-strategies prior to the ER course, their frequency increased dramatically after the ER training. The former is a sub-category of reappraisal, which is a form of cognitive change and pertains to students' efficacy self-talks (Wolters, 2003) with the aim of accentuating their ability to achieve their goals (Bielak & Mystkowska-Wiertelak, 2020a; 2020c). The reason for the low frequency of reassurance in the pre-training phase is likely due to the students' low levels of self-confidence and motivation and high levels of shame. Instructing learners to consciously reappraise the control or value of learning could raise the frequency of reassurance after the ER course. Self-regulated learning strategies, as a sub-division of Harley et al. (2019) and Mystkowska-Wiertelak's (2020a) internal situation modification and Burić et al.'s (2016) developing competencies, had a low frequency before students were trained to adopt a variety of learning strategies (e.g., cognitive-behavioral engagement, deep vs. surface processing, organizing materials, metacognitive knowledge) in order to positively influence the emotion-inducing situations through regulating the cognitive-behavioral aspects of language learning.

Concerning the second research question, the findings related to the first theme (i.e., *sufficient perceived control over negative emotions in high-stakes situations*) within the post-training phases are primarily in accord with the principles of CVT underpinned by Pekrun (2006). As emphasized by Harley et al. (2019, p. 109), "the controllability of actions and outcomes exerted by oneself or external factors (i.e., internal vs. external locus of causation of success)" plays a significant role in regulating students' anxiety and anger. Raising students' awareness of how, when, and where to adopt control-oriented cognitive change strategies can reappraise their causal expectations and lessen their anxiety. According to Pekrun's (2006) CVT, perceived control has an important role in the generation of outcome- and activity-focused anger; thus, targeting appraisals of control through reappraisal tactics can diminish anger to a great extent through heightening action-control and action-outcome expectancies for current and future achievement activities. Longitudinal adoption of such control-driven ER strategies can be effective in down-regulating intense emotions with maladaptive nature in high-evaluative achievement situations such as exams.

The increase in *the use of explicit ER strategies* as a result of ER interventions is in line with Talbot and Mercer (2018) who claimed that raising individuals' awareness can lead to the conscious implementation of ER strategies, which enables them to modify and manipulate the strategies to obtain the most effective result. Although a number of these strategies tend to be implicit, intuitive, and automatized over time, the explicit and strategic regulation of emotions helps the learners to monitor these strategies in accord with their personalized language learning purposes. Our strategy instruction promotes Bielak and Mystkowska-Wiertelak's (2020a) claim that, the learners' voluntary engagement and their conscious management of their experienced emotions in emotion-provoking situations (e.g., using relaxation techniques before exams to decrease test anxiety).

The *efficient use of competency-oriented strategies* in the post-training phases was due to training learners how to modify achievement situations—motivated by both instrumental and hedonic goals through enhancing their level of competency—which aligns with "the principle of reciprocal causation that achievement activities and their outcomes reciprocally influence achievement emotions and their antecedents" (Harley et al., 2019, p. 115). Strengthening the learners' level of competency tends to increase the probability of experiencing positive emotions, which can, in turn, maximize the chance of successful performance and promote their appraisals of competence.

Finally, the *decreased distraction as a function of negative simulators* was observed after training the learners to shift their attention away from negatively valued emotions and to concentrate merely on the task at hand. Particularly, using *positive visualization* as a sub-strategy of attentional deployment has been reported to negatively influence one's level of anxiety (Harley et al., 2019). Interestingly, in contrast to our study and most research in educational contexts (e.g., Bielak & Mystkowska-Wiertelak, 2020a; 2020b; Oxford, 2017; Webster & Hadwin, 2015), Gross (2015) reported distraction as the most common type of attentional deployment, which functions as an adaptive strategy in social and every-day contexts. This point accounts for the fact that the (mal)adaptability of ER strategies is dictated by constituent features of situational contexts.

Conclusion

This study was one of the few recent attempts to explore the effects of longitudinal ER training on L2 learners' understanding of their experienced emotions and ER strategies. The results indicated that teaching healthier patterns of ER plays a prominent role in raising L2 learners' awareness of their emotional responses and improving adaptive regulatory strategies. The findings add to the literature on L2 learner emotions by highlighting how familiarizing students with ER strategies can enhance their knowledge about emotions, which ultimately helps them come to a better understanding of how to regulate their positive and negative emotions across different learning situations.

The study offers practical implications for both language teachers' pedagogical practice and learners' implementation of ER strategies. As for the teachers, our training program can provide teachers with a set of guidelines on how to incorporate a range of L2-specific learner-oriented ER strategies (see Bielak & Mystkowska-Wiertelak, 2020a, 2020c, and Oxford, 2017) into their lesson plans and teaching materials. However, the ER intervention programs must be creative in that, they need to give teachers context-specific insights to adapt the strategies to the particular achievement situation (learning, test-taking, and classroom), which leads to the most effective result (see the integrative model of ER proposed by Harley et al., 2019). Such practical training programs could also help students develop their awareness of the range of emotions emerging across different contexts so that they can up- and down-regulate their AEs in line with the specified achievement goals.

One limitation of our study was underestimating the importance of co-regulation. Further research is needed to be conducted on co-regulating learners' emotions, particularly in the classroom context. Another limitation would be the all-female participants of our study. It is strongly recommended that similar studies be conducted with an all-male cohort to provide an opportunity to compare the results across gender. Additionally, the match between learner-directed and teacher-driven ER strategies must be studied meticulously. Finally, it is highly recommended to incorporate personality factors and other individual differences (e.g., age and proficiency level) into the ER programs to account for a wider range of affective factors defining students' emotional development.

About the Authors

Mohammad N. Karimi is an Associate Professor of Applied Linguistics at Kharazmi University, Tehran, Iran, where he teaches SLA, Second Language Teacher Education, Psycholinguistics, etc. to postgraduate students. His papers on different language issues have appeared in international journals such as *The Modern Language Journal, Innovation in Language Learning and Teaching, System, etc.* ORCID ID: 0000-0001-7834-6368

Mohammad R. Hashemi is an Assistant Professor of Applied Linguistics at Kharazmi University, Tehran, Iran. His current research interests include qualitative and mixed methods research in applied linguistics, language teacher professionalism, and discourse studies. He has published his works in international journals including the *Journal of Mixed Methods Research*, *The Modern Language Journal*, and *Applied Linguistics*. His recent chapter on mixed methods research appeared in *The Routledge Handbook of Research Methods in Applied Linguistics* (published in 2020). ORCID ID: 0000-0002-1876-9323

Parastoo Alizadeh Oghyanous is currently a PhD candidate of Applied Linguistics at Kharazmi university, Tehran. She has presented papers at national conferences and published papers in national and international journals. She has also co-authored an EAP book for students of Education in 2017. Her areas of interest include teaching/learning strategies, cognitive styles, brain-based teaching, cognition/metacognition and their role in teaching and learning. She has published in *Cogent Education, Innovation in Language Learning and Teaching, Language-Related Research, etc.* ORCID ID: 0000-0003-0745-2600

References

Bielak, J., & Mystkowska-Wiertelak, A. (2020a). Investigating language learners' emotion-regulation strategies with the help of the vignette methodology. *System, 90*, 1–16. https://doi.org/10.1016/j.system.2020.102208

Bielak, J., & Mystkowska-Wiertelak, A. (2020b). Language teachers' interpersonal learner-directed emotion-regulation strategies. *Language Teaching Research*. Advance online publication. https://doi.org/10.1177/1362168820912352

Bielak, J., & Mystkowska-Wiertelak, A. (2020c). Language learners' emotion-regulation strategies: a narrative review. In M. Simons, & T. F. H. Smits (1st ed.), *Language Education and Emotions* (pp. 21–36). Routledge.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braunstein, L. M., Gross, J. J., & Ochsner, K. N. (2017). Explicit and implicit emotion regulation: A multi-level framework. *Social Cognitive and Affective Neuroscience*, *12*(10), 1545–1557. https://doi.org/10.1093/scan/nsx096

Burić, I., Sorić, I., & Penezić, Z. (2016). Emotion regulation in academic domain: Development and validation of the academic emotion regulation questionnaire (AERQ). *Personality and Individual Differences, 96,* 138–147. https://doi.org/10.1016/j.paid.2016.02.074

Creswell, J. W., & Guetterman, T. C. (2021). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (6th ed.). Pearson.

Dewaele, J.-M. (2011). Reflections on the emotional and psychological aspects of foreign language learning and use. *Anglistik. International Journal of English Studies, 22*(1), 23–42. http://www.winter-verlag.de/en/detail/t3687002/Ang...

Dewaele, J.-M., & MacIntyre, P. (2014). The two faces of janus? Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching*, *4*(2), 237–274. https://doi.org/10.14746/ssllt.2014.4.2.5

Dewaele, J.-M. (2015). On emotions in foreign language learning and use. *The Language Teacher, 39*(3), 13–15. http://jalt-publications.org/tlt/issues/2015-05_39.3

Dewaele, J.-M., & Dewaele, L. (2017). The dynamic interactions in foreign language classroom anxiety and foreign language enjoyment of pupils aged 12 to 18. A pseudo-longitudinal investigation. *Journal of European Second Language Association, 1*(1)*,* 12–22. https://doi.org/10.22599/jesla.6

Dewaele, J.-M., Chen, X., Padilla, A. M., & Lake, J. (2019). The Flowering of Positive Psychology in Foreign Language Teaching and Acquisition Research. *Frontiers in Psychology*, *10,* 1–13. https://doi.org/10.3389/fpsyg.2019.02128

Galmiche, D. (2018). The Role of Shame in Language Learning. *Journal of Languages, Texts, and Society, 2,* 99–129. https://www.nottingham.ac.uk/research/groups/languagestextssociety/documents/lts-journal/issue-2/shame-in-language-learning-language-texts-society-issue-2.pdf

Gkonou, C. (2018). Listening to highly anxious EFL learners through the use of narrative. In R. L. Oxford & C. Amerstorfer (Eds.), *Language learning strategies and individual learner characteristics* (pp. 79–97). Bloomsbury.

Gregersen, T., & MacIntyre, P. D. (2014). *Capitalizing on language leaner's individuality: From premise to practice.* Multilingual Matters.

Gross, J. J. (1998). Antecedent and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology*, *74*(1), 224–237. https://doi.org/10.1037//0022-3514.74.1.224

Gross, J. J. (Ed.). (2014). *Handbook of emotion regulation* (2nd ed.). Guilford.

Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, *26*(1), 1–26. https://doi.org/10.1080/1047840X.2014.940781

Harley, J. M., Pekrun, R., Taxer, J. L., & Gross, J. J. (2019). Emotion regulation in achievement situations: An integrated model. *Educational Psychologist, 54*(2), 106–126. https://doi.org/10.1080/00461520.2019.1587297

Helgesen, M. (2016). Happiness in ESL/EFL: Bringing positive psychology to the classroom. In P. MacIntyre, T. Gregersen, & S. Mercer (Eds.), *Positive psychology in SLA* (pp. 305–323). Multilingual Matters.

Hurd, S., & Xiao, J. (2010). Anxiety and affective control among distance language learners in China and the UK. *RELC Journal*, *41*(2), 183–200. https://doi.org/10.1177/0033688210373640

Jin, Y., & Zhang, L. J. (2018). The dimensions of foreign language classroom enjoyment and their effect on foreign language achievement. *International Journal of Bilingual Education and Bilingualism*, *24*(7), 948–962. https://doi.org/10.1080/13670050.2018.1526253

Karimi, M. N. & Fallah, N. (2021). Academic burnout, shame, intrinsic motivation and teacher affective support among Iranian EFL learners: A structural equation modeling approach. *Current Psychology*, *40*(4), 2026–2037. https://doi.org/10.1007/s12144-019-0138-2

Khajavy, G. H., MacIntyre, P. D., & Barabadi, E. (2018). Role of the emotions and classroom environment in willingness to communicate: applying doubly latent multilevel analysis in second language acquisition research. *Studies in Second Language Acquisition, 40*(3), 1–20. https://doi.org/10.1017/S0272263117000304

Oxford, R. L. (2017). *Teaching and researching language learning strategies: Self-regulation in context*. (2nd ed.). Routledge. https://doi.org/10.4324/9781315719146

Pekrun, R. (2006). The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational Psychology Review, 18*, 315–341. https://doi.org/10.1007/s10648-006-9029-9.

Pekrun, R., Frenzel, A. C., Goetz, T., & Perry, R. P. (2007). The control-value theory of achievement emotions: an integrative approach to emotions in education. In P. A. Schutz, and R. Pekrun (Eds.), *Emotion in education.* (pp. 13–36). Academic Press. https://doi.org/10.1016/B978-012372545-5/50003-4

Pekrun, R., Lichtenfeld, S., Marsh, H.W., Murayama, K., & Goetz, T. (2017). Achievement emotions and academic performance: Longitudinal models of reciprocal effects. *Child Development, 2*(1), 1–18. https://doi.org/10.1111/cdev.12704

Reilly, P., & Rosas, J. S. (2019). The achievement emotions of English language learners in Mexico. *Electronic Journal of Foreign Language Teaching, 16*(1), 34–48. https://e-flt.nus.edu.sg/wp-content/uploads/2020/09/reilly.pdf

Seibert, G. S., Bauer, K. N., Maya, R. W., & Fincham, F. D. (2017). Emotion regulation and academic underperformance: The role of school burnout. *Learning and Individual Differences, 60,* 1–9. https://doi.org/10.1016/j.lindif.2017.10.001

Shao, K., Pekrun, R., & Nicholson, L. J. (2019). Emotions in classroom language learning: What can we learn from achievement emotion research? *System, 86,* 1–47. https://doi.org/10.1016/j.system.2019.102121

Talbot, K. R., & Mercer, S. (2018). Exploring university ESL/EFL teachers' emotional well-being and emotional regulation in the United States, Japan and Austria. *Chinese Journal of Applied Linguistics, 41*(4), 410–432. https://doi.org/10.1515/cjal-2018-0031.

Tze, V. M. C., Daniels, L. M., & Klassen, R. M. (2015). Evaluating the Relationship Between Boredom and Academic Outcomes: A Meta-Analysis*. Educational Psychology Review*, *28*(1), 119–144. https://doi.org/10.1007/s10648-015-9301-y

Webb, T. L., Miles, E., & Sheeran, P. (2012). Dealing with feeling: A meta-analysis of the effectiveness of strategies derived from the process model of emotion regulation. *Psychological Bulletin*, *138*(4), 775–808. https://doi.org/10.1037/a0027600

Webster, E. A., & Hadwin, A. F. (2015). Emotions and emotion regulation in undergraduate studying: Examining students' reports from a self-regulated learning perspective. *Educational Psychology*, *35*(7), 794–818. https://doi.org/10.1080/01443410.2014.895292

Wolters, C. A. (2003). Regulation of motivation: Evaluating an underemphasized aspect of self-regulated learning. *Educational Psychologist*, *38*(4), 189–205. https://doi.org/10.1207/S15326985EP3804_1

Yang, Y., Gao, Z., & Han, Y. (2021). Exploring Chinese EFL learners' achievement emotions and their antecedents in an online English learning environment. *Frontiers in Psychology, 12*, 1–17. https://doi.org/10.3389/fpsyg.2021.722622

Appendix A

Interview questions (translated from Persian)

A) Questions before the ER workshops and in the delayed phase:

1. What are the effects of positive and negative emotions on language learning? Can you make examples?

2. How often do you experience negative emotions such as language anxiety, anger, shame, hopelessness, and boredom? In what achievement situations (classroom, learning, testing) do you experience them most often? Do these emotions impact on your language learning?

3. How often do you experience positive emotions such as hope, pride, and enjoyment? In what achievement situations (classroom, learning, testing) do you experience them most often? Do these emotions impact on your language learning?

4. How much are your emotions paid attention to in the class? Please explain which emotions more and which ones less.

5. How much important is it to you to have a class in which your emotions are considered important?

6. How often do you experience both positive and negative emotions at the same time? Which emotions are they? Does this simultaneity influence your language performance differently from the emotions working separately?

7. Do you attempt to evoke or increase your positive emotions such as enjoyment, hope, and pride, for example when the situation seems stressful? If so, what specific techniques and strategies do you use? Do they work? If not, why do you think so?

8. Do you attempt to cope with or decrease negative emotions such as language anxiety, anger, shame, hopelessness, and boredom? If so, what specific techniques and strategies do you use? Do they work? If not, why do you think so?

B) Questions after each workshop and in the delayed phase:

1. Did the workshop(s) influence your emotions in general? How? Did you find it helpful? How?

2. Did the workshop(s) help you become aware of your emotions? How?

3. What aspects of the workshop(s) influence your emotions more? Please explain.

4. Did you have any expectations of the workshop(s) that did not realize the way you wanted? (Note: This question aims to help you run the subsequent workshop(s) better)

5. Has your understanding of your emotions changed by participating in the workshop(s)? If so, how?

6. Were there any aspects of the workshop(s) that you used in achievement situations such as language learning, classroom, and test-taking? Did they help you regulate your positive and negative emotions efficiently? How?