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Integrating positive psychology into an English as a foreign language teacher education program

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Abstract

Positive psychology (PP) is the study of the role of positive emotions in optimizing performance. In response to a dearth of research on harnessing the potential of PP in enriching language teacher education, the present study aimed at integrating PP into an English as a foreign language teacher education program to assess its effects on the development of positivity among teachers and possible improvement in their instructional practice. To that end, first the PERMA-Profil was administered to 25 teachers, who were about to attend a teacher training course. The results of this phase revealed the need for an intervention to raise three focal participants' awareness of the tenets of PP since they scored below the mean on the scale. During the second phase, the three focal participants were trained in the principles of PP for six weeks. They were also asked to write reflections about the instruction they received on a weekly basis. Thematic analysis of their reflections indicated that the teachers formed positive emotions, engagement, relationship, meaning, and accomplishment, which resulted in their enhanced instructional practice. Moreover, the participants believed that the intervention helped them actively engage with the main teacher training course. The findings imply that PP has the potential to enrich teacher education programs.

Keywords: Positive psychology, PERMA, Positive emotion, PERMA-Profil, Language teacher education

Introduction

Developments in psychology have had profound effects on education, in general, and on language education, in particular (Dörnyei, 2019). In fact, the origins of language teaching methods are rooted in psychological theories pertaining to second language (L2) learning (e.g., see Mitchell et al., 2019). Most of these developments have focused on language learners with the aim of boosting learning outcomes. Language teachers, however, have rarely been the locus of educational psychology and only recently psychological theories have been used in relation to language teacher professional development (Hiver, 2013; Kubanyiova, 2020; Rahmati et al., 2019b; Sadeghi et al., 2022). PP is another

development, which is believed to have the potential to enrich language teacher education (Gregersen & MacIntyre, 2018).

PP has been founded on three main thrusts, namely positive emotions (feelings such as enjoyment that bring about satisfaction), positive traits (i.e., individual characteristics that help someone thrive), and positive institutions (i.e., organizational settings that enable people to flourish) (MacIntyre et al., 2016). Since its inception, PP has intrigued language education researchers, who have explored its contribution to learner achievement. Botes et al. (2022), for instance, have reported that foreign language enjoyment (FLE), as a positive emotion, significantly correlates with willingness to communicate (WTC), learning outcome, and self-perceived achievement. Closely related to this observation, researchers (Dewaele & Dewaele, 2017; Dewaele & MacIntyre, 2019; Dewaele et al., 2018b, 2019b; Jiang & Dewaele, 2019) have found that teachers' characteristics like their sense of amiability and affability, as outward manifestations of positive relationship, serve as significant sources of learners' enjoyment. It is believed that the main components of PP, including positive emotions, engagement, positive relationship, meaning, and accomplishment (PERMA), assist people in experiencing well-being (Mercer et al., 2018; Seligman, 2011, 2012).

It can be construed, thus, helping teachers develop and experience PERMA through raising their awareness of the potentials of PP may enhance their positivity and lead to improved instructional practice which, in turn, result in boosting learning outcomes. Nevertheless, the application of PP in teacher education has thus far remained an uncharted area. More specifically, the question of how PP can be integrated into mainstream teacher education courses to enrich them warrants due research attention. Accordingly, the current study aimed to measure the level of PERMA among a group of EFL teachers and conduct an intervention to raise their awareness of PP simultaneous with their participation in a teacher training program. The main objective was to assess whether such an intervention could lead to the development of positivism among teachers and enhance their instructional practice. Unlike other insightful studies such as Bao et al. (2022) and Fathi et al. (2023) that adopt unitary perspectives by focusing on emotions or engagement, respectively, the present study tried to adopt a holistic approach to PP by delving into EFL teachers' PERMA. Moreover, the study aimed to contribute to the growing body of literature by offering insights into how future similar PP interventions could be conducted and even reinforced.

Conceptual framework

Seligman (2011) has formulated the PERMA model, which defines the characteristics of happy and successful people. In this model, the *P* refers to positive emotions such as gratitude, hope, and love, and the *E* denotes engagement epitomized by curiosity, perseverance, and zest. The *R* indicates positive relationships like kindness, teamwork, fairness, leadership, and interpersonal forgiveness. Meaning, represented by the *M* in the model, materializes through perspective, appreciation of beauty and excellence, and spirituality. Finally, the *A* stands for accomplishment, which occurs as a result of creativity, bravery, love of learning, self-regulation, prudence, and humility. The current study drew upon the PERMA model as its conceptual framework, which has already been employed in PP related studies (e.g., Butler & Kern, 2016; Gabryś-Barker,

2022; Kern et al., 2014; Nadlifah et al., 2023; Oladroostam & Rezaee, 2019; Oladroostam et al., 2022; Yeh & Barrington, 2023). The rationale behind the selection of this model was rooted in its inclusive nature in terms of encompassing PP components and the availability of the PERMA-Profiler as a scale that measures those components.

Literature review

The need for raising EFL teachers' awareness about emotions is well-documented in the literature (see Wang (2022) for a review). In fact, teachers' well-being hinges upon general satisfaction with life, approximate lack of negative emotions, and the presence of positive emotions (Kahneman et al., 1999). Seligman (2011, 2012) also defines well-being in the form of the PERMA model according to which those who have positive emotions, engagement, positive relationships, meaning, and accomplishments experience a better sense of well-being. Goodman et al. (2017) have also observed that a strength of the PERMA model is that it views well-being as a social rather than individual phenomenon.

As early as 2009, Seligman et al. (2009) found that parents expected their children to gain happiness, self-esteem, health, and satisfaction in their lives, but as they were asked about their predominant notions of what schools taught their kids, they only reported on some accomplishment related factors like reflective skills, general literacy, math, and discipline. Dewhirst et al. (2014) also assumed that training in positive emotions as an important source of well-being is neglected mainly due to time confinement even in those countries in which positivity, well-being, and health are considered as relevant factors to teaching. Similarly, Mercer et al. (2018) have elaborated that several skills need to be taught in the twenty-first century. They divided these skills into two groups: a) those needed for prospective workplace comprising of digital literacies, innovation, critical thinking skills, and b) skills required to function appropriately in a society, including personal well-being, citizenship, and social awareness. Nevertheless, they explain that one of the key skills that has been mostly discounted in education is teaching positive emotions and well-being.

In response to the above calls for training on PP, a number of attempts have been made recently to raise teachers' awareness of the potential of positive emotions. For instance, Gabryś-Barker (2022) offered a course on positive emotions to a group of EFL teachers and found that the course provided them with helpful strategies to cope with emotional crises during the pandemic. In another study, Yeh and Barrington (2023) asked a group of teachers to simply focus on positive emotions while performing their workplace activities such as meetings. This activity assisted teachers in regulating their negative emotions like stress as well as fostering positive emotions like enjoyment. The participants also developed better relationships with colleagues and students. In a similar vein, Nadlifah et al. (2023) conducted PERMA-informed interviews with teachers and reported that they derived positive emotions from supportive relationship with family members and friends. The participants argued that they led a meaningful life as they supported the people around them. Regarding accomplishment, they believed that they had not made much progress in their life although they were trying hard to achieve their goals.

In addition to training, teachers' overall sense of positivity and well-being can be affected by a host of negative factors surrounding them (Rusu & Colomeischi, 2020). For instance, MacIntyre et al. (2019a, 2019b) found that stressors negatively

correlated with teachers' well-being. As the level of stress increased, practitioners' sense of well-being and positivity decreased. The researchers concluded that there was a need to gain a better understanding of how positivity and well-being could be promoted since teaching by itself is a profession in crisis with heavy workloads, struggle with facilities, overcrowded classes, parental expectations, lack of motivation on the part of the learners, etc. (Hiver & Dörnyei, 2017; Rahmati & Sadeghi, 2021; Rahmati et al., 2019a). Despite these adversaries, Derakhshan et al. (2023) found that teachers' creativity and interest in their profession were strong predictors of work engagement. Similarly, Fathi et al. (2023) tested a model in which foreign language teaching enjoyment (along with professional identity and grit) was reported as one of the antecedents of work engagement. In their model, the role of enjoyment was found to be crucial as, along with grit, it was a mediator through which professional identity exerted its indirect positive influence on work engagement.

Regarding emotional intelligence (EI), Petrides et al. (2007) pointed out that trait emotional intelligence could be defined as emotional self-efficacy. This notion has been explained as being flexible and able to adapt to new conditions, being aware of one's own and other people's feelings, being capable of communicating feelings to others, altering others' emotional states, establishing positive relationships with others, and withstanding pressure. Dewaele et al. (2018a) observed that teachers' EI had a tremendous effect on their innovation and creativity, classroom management, and pedagogical skills. Likewise, Dewaele and Mercer (2018) demonstrated that teachers' high EI was linked with having more positive attitudes about students. Additionally, the need for having EI training before teachers enter the teaching profession has been underscored by Vesely et al. (2014). Therefore, EI is a positive trait, which is closely associated with positive emotions and positive interpersonal relationships.

Furthermore, PP literature (Khajavy et al., 2018, 2021; Li et al., 2018) reveals that language learners' sense of FLE, as a key catalyst for enhanced learning, can be impacted by a range of learner-internal and learner-external variables. Abundant research has indicated that teachers, as one of the learner-external factors, play a significant role in escalating learners' sense of FLE. For instance, Dewaele and Dewaele (2017), Dewaele et al. (2019a, 2019b), Dewaele and MacIntyre (2019), and Jiang and Dewaele (2019) reported that the most prevalent source of FLE was the teacher. They demonstrated that teachers' sense of friendliness and humor, for example, positively correlated with positive viewpoints about foreign language, WTC, and a feeling of higher proficiency among language learners.

As can be understood from these studies, teachers' positivity and friendliness exert a strong influence on learners' sense of enjoyment. Hence, it would be constructive to integrate PP into teacher education programs to familiarize teachers with the potentials of positive emotions. Accordingly, the present study set as its aim to answer the following research questions (RQs):

1. To what extent do EFL teachers possess PERMA as measured by the PERMA-Profiler?
2. Which components of PERMA can be extracted from teachers' written reflections following instruction in PP?

3. Can a PP integrated teacher education program develop positive emotions in teachers?

Methods

Context

The context of the present study was set in Iran, where language is taught as a foreign language. The teaching of English as a school subject begins at the age of 12 or 13 (the 7th grade) at public schools. However, since English is an international language, it is also taught at private language schools. The students at private language schools voluntarily enroll at these institutes at any age they or their parents wish. The two sectors are also different in terms of their teachers. English teachers at public schools are either the graduates of a specialized teacher education university called Fahangian University or mainstream university graduates who have passed government-administered teacher recruitment exams and attended a one-year intensive teacher training course at Farhangian University. English teachers at private language schools, on the other hand, are those who have studied English at mainstream universities or those who have learned English through means other than necessarily attending a university. Private school teachers often start teaching with the training offered by their affiliated schools, or they learn teaching as they go. In any case, the training they receive mainly concerns practical issues like classroom management, teaching grammar, etc. with almost no coverage of PP components.

Participants

The current research was an explanatory mixed-methods study conducted in a quantitative first phase and a qualitative second phase. The participants of the quantitative stage were 25 teachers, who had between 10 and 15 years of experience in EFL teaching. They were 28–45 years old female teachers holding a Bachelor of Arts (44%) or a Master of Arts (56%) in Teaching English as a Foreign Language (TEFL) or Translation Studies. Availability sampling technique was used to recruit the participants of the first phase since these 25 teachers were about to attend a teacher training program at the private language school where they taught. The reason for selecting female teachers was that, following the segregated educational system of the country, the school where the present study was conducted was an all-female private language school and, hence, all the students, teachers, and managers were female.

For the qualitative phase, three focal participants were selected from among the participants of the first phase. These focal participants were selected based on their scores on the PERMA-Profil. The first participant at this stage was 28 and had eight years of experience working as an EFL teacher in various private institutes. The second participant was 34 with ten years of experience as an EFL teacher at the private language school where the study was set. The third participant was a 35-year-old teacher with eight years of experience in EFL profession again at the same private language institute. All of these three participants held a master's degree in TEFL. Table 1 summarizes the profiles of the participants of both phases of the study.

Table 1 Demographic information

Phase	Number	Age range (years)	Range of experience (years)	Mean experience (years)	Standard Deviation (SD)
Quantitative	25	28–45	10–15	6.4	1.76
Qualitative	3	28–35	8–10	8.66	1.15

Instruments

The quantitative data collection instrument used in the present study was an adapted version of Kern et al. (2014) PERMA-Profiler (see Additional file 1). MacIntyre et al. (2019b), who used the PERMA-Profiler designed by Butler and Kern (2016) in their study, suggested that the one compiled by Kern et al. (2014) was a more comprehensive measure in comparison and would yield fine-grained results. However, for the purposes of the current research, adaptations were made in Kern et al.'s (2014) scale.

First, a background section (section A), which was meant to collect information on the respondents' profiles (age, experience, university degree, field of study, and experience in attending teacher training courses), was added to the original version. Next, Kern et al.'s (2014) PERMA-Profiler had 10 subscales with 112 statements. In the present study, only the first 5 subscales specifically targeted at measuring the components of PERMA were retained and the other 5 subscales, including *Health and Vitality* (6 items), *Somatic Symptoms* (7 items), *Satisfaction with Life* (5 items), *Index of Job Satisfaction* (4 items), and *Organizational Commitment Scale* (9 items) were not adopted. This procedure was especially followed to work within the focal constructs of the present study and to shorten the scale by removing unnecessary items. Therefore, the main body of the present questionnaire (section B) was directly taken from Kern et al. (2014) PERMA-Profiler, and it comprised 5 subscales, including *Positive and Negative Affect Schedule* (Watson et al., 1988) with 20 items on both positive and negative emotions, the *Utrecht Work Engagement Scale* (Schaufeli et al., 2002) containing 17 statements on engagement, the *Organizational Virtuousness Scale* (Cameron et al., 2011) made up of 29 items on relationships, the *Meaning in Life Questionnaire: Presence subscale* (Steger et al., 2006) with 5 items on meaning, and the *Accomplishment: Miscellaneous Items* subscale containing 10 items on accomplishment. This procedure resulted in the production of a PERMA-Profiler with a total of 81 items, which was shorter than Kern et al. (2014). Additionally, the specific titles of the five subscales of the PERMA-Profiler were removed to prevent the release of more than necessary information to the participants. Finally, unlike Kern et al. (2014), who used variable response options such as 1 (never) to 5 (always) and 1 (not at all characteristic) to 7 (completely characteristic) across subscales, in the present study a 5-point Likert-scale of 1 (strongly disagree) to 5 (strongly agree) was used. For the items that the participants were supposed to show the extent of a feeling or emotion, they simply chose numbers 1–5. These measures were taken to obtain uniform response options to allow the participants to move through the questionnaire smoothly.

The results of a pilot study indicated that the instrument enjoyed Cronbach's alpha values reported in Table 2.

Table 2 Reliability statistics for the PERMA-profiler

Subscale	Emotion	Engagement	Relationship	Meaning	Accomplishment	Overall
Cronbach's alpha	.76	.93	.97	.70	.83	.96

All these reliability indices are considered appropriate as noted by Dörnyei and Taguchi (2009) and Harrison et al. (2020), who believed that a Cronbach's alpha value of 0.70 was an adequate reliability index for a scale. A reliability index of 0.70 on the meaning component of the PERMA-Profiler could possibly be ascribed to the fact that it had the least number of questions required to measure a construct. As to validity, the content of the scale was reviewed by two experts in PP and a colleague experienced in quantitative research.

The qualitative data collection instruments included a six-week PP intervention scheme and participants' reflective journals which, for the sake of clarity and brevity, are outlined below under data collection procedures. The validity of the procedures was expert viewed by two highly experienced qualitative researchers and a PP researcher.

Data collection procedure

Prior to the administration of the PERMA-Profiler, an orientation session was organized with the teachers, and they were informed of the first phase of the study. They, then, granted their written consent to take part in the first phase on the conditions of confidential treatment of their background information and item responses. Subsequently, the scale was administered to all 25 accessible teachers, who unanimously preferred to take the English version. They were required to complete the questionnaire in the same session although no time restrictions were imposed. These procedures resulted in the collection of the quantitative data for the current study.

The qualitative second phase of the study was conducted with three focal participants, and Seligman et al.'s (2009) experiment with PP was used as the basis of the intervention. In that study, the participants received instruction in PP, were asked to embed PERMA in their instruction, and were encouraged to live with the elements of PERMA. The same steps were followed in the present study to integrate PP into teacher education. The intervention began simultaneously with the teacher training program and consisted of the three consecutive steps of *raising teachers' awareness of PP* during which teachers were familiarized with the potentials of positive emotions, engagement, relationships, meaning, and accomplishment in leading a successful social and professional life, *embedding PP* during which practitioners included such emotions in their moments of teaching, and *living with those emotions*, where teachers included such emotions in their everyday life and practiced living positively. All the activities and interventions were taken from The Greater Good in Action Website <https://ggia.berkeley.edu/#filters=gratitude,happiness>. The intervention was conducted in six weeks with a 90-minute session per week except for the first week which lasted for 2 hours because the concepts were new to the participants, and they asked several questions all answered by one of the researchers. Given the holistic nature of PERMA, it was almost impossible to concentrate on its five components in isolation, but attempts were made in the present study to focus on a particular component during individual weekly interventions to align the

study with its conceptual framework (i.e., PERMA). At the end of every week, the participants were expected to submit a reflection about their reactions toward living with such emotions and embedding them in their instruction.

During the first week of the intervention, the teachers were asked to concentrate on 'use your strengths' activity, and they were asked to think about one of their personal strengths (e.g., creativity, perseverance, kindness, modesty, or curiosity). They were, then, asked to consider using one of these strengths in a new different way. For instance, if they chose curiosity, they were encouraged to attempt an activity that they had never tried before. They were expected to write about a personal strength and how they were going to use it every day during the week. The aim of this intervention was to focus on the *E* (engagement) component of PERMA since personal strengths such as perseverance and curiosity result in engagement (Seligman, 2011) with an activity.

As for the second week, the teachers were asked to complete a gratitude journal and make a list of three things they were grateful for during the week. They were, then, required to include such a procedure in their instruction asking their learners to make a gratitude journal and make a list of things they were thankful for. Since gratitude is the epitome of positive emotions (Seligman, 2011), this intervention was an attempt to enhance the *P* (positive emotions), among others, of PERMA model.

For the third week, the focal participants were asked to get focused on a PP intervention called 'meaningful photos.' They were required to take photographs of the things that made their life meaningful or full of purpose. These could be people, places, or objects. If they were not able to take photos of these things, they could take photos of souvenirs, reminders, websites, or even other photos. They were asked to take at least nine photographs. At the end of the week, they would upload their photos to a computer. Once they had collected all their photos, they were encouraged to take time to look at and reflect on each one. For every photo, they were expected to write down a response to each of the following questions:

'What does this photo represent, and why is it meaningful?'

'Does this photo give you any direction or purpose in life?'

They were also required to ask their learners to do the same activity in their classes. These activities aimed to boost the *M* (meaning) of PERMA, as our conceptual framework.

Upon entering the fourth week, the teachers were required to take 10 minutes every day to complete the following activities for one week:

- Write down three funniest things you heard, saw, did, or experienced today. Think about the things you found funny and describe how you felt.
- Make notes of the triggers of those funny events by answering the question: 'Why did this funny event happen?'

They were required to create a record of the items as they were told that it did not suffice to simply do the exercise in their heads. The activities of this week were meant to assist teachers in experiencing global positivity and, hence, concentrated on almost all of the foci of the analytical model of the study (i.e., PERMA).

During the fifth week of the instruction, the participants were asked to get involved in an intervention called 'best possible self'. They were expected to take a moment to imagine their life in the future. What was the best possible life they could imagine? They were supposed to consider all of the relevant areas of their life such as their career, academic work, relationships, hobbies, and health. What would happen in these areas of their life in their best possible future? This week's intervention was mainly targeted at the *A* (accomplishment) part of PERMA, as the conceptual framework of the study.

During the sixth week, the participants were asked to take a moment to think about an important relationship such as a romantic relationship or close friendship in their life. This intervention was called 'mental subtraction of positive events'. They were expected to think back to where and how they met this person and consider the ways in which they might not have met this person and never formed a friendship. For example, if they had not decided to go to a certain party, take a certain class, or move to a certain city. They were expected to imagine what their life would be like now if events had unfolded differently and they had never met this person. Additionally, they were required to remember some of the joys and benefits they had enjoyed as a result of this relationship and consider how they would feel if they were denied of all of them. They were also asked to use these as topics of discussion in their classes. Obviously, this part of the intervention most specifically focused on the *R* (relationship) component of PERMA as the theoretical lens of the current study.

Data analysis

The quantitative data were analyzed for descriptive statistics such as the individual participants' total scores on the scale, the mean score of the whole group, and the mean percentage of scores attracted by each subscale in every individual response options. SPSS software version 26 was used to carry out the statistical analyses. The main objective of this stage of analysis was to identify those participants who obtained a total score (x) smaller than the mean score (289.61) obtained by the whole group. In fact, a raw score of below observed mean ($x < 289.61$) was set as an inclusion criterion to enter the intervention stage. The results of this stage revealed that 12 out of 25 participants had obtained a total score of below 289.61. Three out of these 12 participants agreed to enter the intervention stage while 9 participants refused consent for the intervention on the ground of heavy workload and lack of time. Since granting informed consent was the second inclusion criterion for entering the intervention stage, we proceeded to the qualitative phase with only three focal participants.

Regarding qualitative data analysis, we conducted thematic analysis following Dörnyei (2007). Accordingly, the focal participants' reflections were collected, and their contents were analyzed to extract the themes pertaining to PP. During the open coding stage, the researchers read and extracted the themes separately. For instance, '*I am more willing to continue my career in spite of all the obstacles*' was coded as a theme pertaining to the engagement component of PERMA. Subsequently, the researchers negotiated their extracted themes and Cohen's Kappa value of 0.93 showed a high inter-coder reliability at this stage. Next, axial coding technique was used to subsume the themes which were not directly related to the PERMA model, as our conceptual framework, into the components of PERMA. For example, '*I am*

now both a psychologist and a teacher and I am a more useful person compared to the past, which was closely related to self-efficacy, was classified under the accomplishment component of PERMA. This stage required protracted negotiations among the researchers in order to arrive at an agreement. Finally, during the selective coding stage, all the extracted themes were grouped under the five components of PERMA by the researchers.

To ensure the trustworthiness of our findings and interpretations, in addition to the six-week engagement with the participants by one of the researchers, the authors read and reread teachers’ reflections to familiarize themselves with the data at hand to obtain credibility. As to dependability, the researchers conducted the open coding stage individually and then measured inter-coder reliability as reported above (i.e., 0.93). Regarding confirmability, we drew on constant debriefing of the research team during different stages of the study. With respect to transferability, the researchers, who were well aware of the limited generalizability of qualitative findings, made sure that their focal participants were selected purposively to focus on those who needed the intervention and tried to provide a thick description of the context and participants of the study.

Findings

Quantitative results

The results discussed below show to what extent the EFL teachers possessed PERMA (RQ 1). Table 3 presents the summary of responses for each subscale of the PERMA-Profiler.

As shown in Table 3, one-fifth of the responses for the positive emotions component of PERMA, that is the P element of the theoretical framework of the study, centered around the middle position with the other 80% falling almost equally on the disagree and agree ends of the scale. This meant that nearly half of the participants did not experience positive emotions whereas the other half assumed that they enjoyed positive emotions in their life.

Regarding engagement, the results showed that approximately one-third of the participants were not engaged with their profession while a little over 50% of them engaged with EFL teaching as their career. The rest of the participants took a mid-point with regard to the extent to which they engaged with their job.

As to positive relationship, around half of the responses were attracted by the agreement end of the scale, well over one-fifth by the midway standpoint, and a low

Table 3 Percentage of scores on the PERMA-profiler subscales

Subscales	Strongly disagree	Disagree	Somewhat agree	Agree	Strongly agree
Emotions	14.6	25.6	20.2	29	10.6
Engagement	15.29	17.41	15.06	18.82	33.42
Relationship	2.21	9.52	22.34	45.24	2.69
Meaning	12.80	10.40	11.20	44	21.60
Accomplishment	0	0.8	22.49	44.98	31.73

Table 4 Participants with a total score of below the mean

Participants	1	2	3	4	5	6	7	8	9	10	11	12
Scores	235*	275	265	283	278	270	250*	281	246	274*	265	285

percentage of around 12% by the disagreement end of the scale. Therefore, it could be concluded that most of the participants of the present study believed that they had a positive relationship with others.

A closer look at the agreement side of the meaning subscale indicated that about two-thirds of the participants believed that their life was meaningful and goal-directed while around a quarter of the participants did not have such an assumption. Also, with a fraction of around one-tenth of the responses in the middle position, it could be suggested that the participants presumed that their life was meaningful.

With respect to accomplishment, the disagreement points of the scale were not able to attract almost any answers. On the other hand, over three quarters of the responses fell on the agreement extremes of the subscale. These results were adequate enough to conclude that the participants of the present study enjoyed a high sense of accomplishment in their life.

An analysis of the observed total scores on the PERMA-Profilier as a whole revealed that 12 participants obtained a total score of below the mean score of 289.61. These teachers' total scores are presented in Table 4.

As already stated, only three (marked *) out of these 12 participants gave their consent to be trained in the tenets of PP. The three focal participants are simply referred to as the first teacher, the second teacher, and the third teacher to observe the participants' rights to confidentiality.

Qualitative findings

Regarding the second phase of the study, the teachers' reflections revealed that the three focal group EFL teachers formed PERMA. The findings of this section are categorized under the five components of PERMA, which serves as the theoretical framework of the study, and relevant pieces of evidence are presented in extracts or enclosed within ". The following findings provided answers to RQ 2 on extracting PERMA from teachers' reflections and the effects of the intervention on the development of positivity among teachers, respectively.

Regarding positive emotions, as the P of the analytical model (i.e., PERMA), the first teacher reflected that she was now better able to control her negative emotions:

Extract 1: I felt that my kindness has helped me to be more patient and relaxed, and I have been able to control a lot of my negative emotions and feelings like anger.

The second teacher also wrote that by talking about funny things in her classes, she felt really happy:

Extract 2: My students and I used to talk about funny things that happened during the day, and we felt so happy.

Additionally, the same teacher felt that she had *'totally changed into an optimistic person'* and was *'more able to understand how her students felt during class'*. This was an instance of showing empathy, a concept closely relevant to positive emotions in PERMA. Similarly, the third teacher said that as a result of doing funny things in her classes following training her *'students experienced more enjoyment'* and she herself felt *'more optimistic'*.

With respect to engagement, which is represented by the *E* in our conceptual model, the first teacher reflected that as a result of the intervention she tried to *'spend time to find funny things for discussion in her classes'* while the second teacher wrote in a reflection entry that she was *'more willing to continue teaching in spite of all the obstacles'*. The third teacher also believed that the intervention not only helped her *'develop a new interest in teaching'* but also assisted her *'in engaging with the teacher training course'*.

As to positive relationship, or the *R* of the study's theoretical lens, the first teacher could use the experience *'to establish a better relationship with the students'*. For the second teacher, the effect of intervention went further beyond the confines of the classroom:

Extract 3: By being kind, I could establish a better rapport with people around me.

The third teacher also learned *'to appreciate positive relationships and to talk about it to students and colleagues'*.

Meaning, symbolized by the *M* of our conceptual framework, also appeared in the focal participants' reflective journals. The first teacher stated that the intervention helped her feel that she was working *'in a rewarding profession'*. The second teacher expressed that she *'thought about the teacher training course'* and she felt like she had *'something to pursue every morning'*. The third teacher also wrote:

Extract 4: These topics have given me awareness about valuable things I have always been negligent of.

Finally, accomplishment, marked by the *A* in the PERMA model, was the most frequently repeated theme in teachers' reflections. In one of her reflections, the first teacher observed that she felt a great sense of accomplishment as a result of attending the PP integrated teacher training course:

Extract 5: Kindness has helped me and my learners to be more successful. I am now both a psychologist and a teacher and I am a more useful person compared to the past. I felt more powerful and more efficient, and my students also felt more successful as they were engaged in conversations related to these emotions. For example, they tried to do more homework and tried to be more diligent.

In another entry she went on to say that *'more learning also took place as students were trying to do funny things'*. The second teacher referred to the accomplishments she made as a result of the intervention and the role this sense of accomplishment played in her students' learning:

Extract 6: They were not afraid of speaking and they felt that they had made so much progress.

A similar idea was expressed by the third teacher:

Extract 7: Most of the students were apprehensive previously, but now they are open and more willing to exchange ideas. Students are now competing hard, and they claim that they practice so many hours to become better learners.

It should be noted that instead of listing all relevant reflections pertaining to PP, only some examples have been reported here for each element of PERMA to observe brevity.

The answer to RQ 3 (whether a PP integrated teacher education program can develop positive emotions in teachers) is implied in the findings presented above. As evident in the above reflections, instances of all five components of PERMA were present in the focal participants' personal experience and instructional practice. Examples of positive emotions developed as a result of the intervention include overcoming negative emotions, feeling kind and patient, adopting an optimistic perspective, understanding students' feelings, and establishing positive relationships, which were mentioned above in the answer to RQ 2.

Moreover, the intervention led to increased interest in EFL profession and enhanced engagement with the teacher training program. Furthermore, teacher engagement proved contagious in terms of bringing about students' engagement with learning and enjoyed the pleasure of learning English in a friendly and funny context. As already mentioned above, students' freedom to express their feelings and emotions and their willingness to communicate were evidence of improvement in EFL teachers' instructional practices.

The reason we formulated RQ 3 was to emphasize the role of PP in enriching pre-service and in-service teacher education or training programs. Integrating PP into such programs, as shown above, could help teachers understand and manage their own emotions. The value of integrating PP in work and life may already be well understood. However, the main objective of RQ 3 was to draw on the results presented in response to RQ 2 above so as to build awareness among EFL teacher educators of the power of and the need for training in managing emotions.

Discussion

The present study aimed to explore to what extent a group of Iranian EFL teachers possessed PERMA as measured by the PERMA-Profiler scale and whether integrating PP into a language teacher training program could develop positivity among them. To achieve its objectives, the study employed a mixed-methods approach beginning with a quantitative phase to identify EFL teachers who needed training on the tenets of PP. This was followed by a qualitative phase in which the focal participants wrote their reflections on a PP intervention program they went through simultaneous with a teacher training course. The content of the participants' reflections was thematically analyzed in light of the PERMA model, which encompasses positive emotions, engagement, positive relationships, meaningfulness, and accomplishment. This model served as the theoretical framework of the study.

As to positive emotions represented by the *P* in PERMA, the quantitative phase of the study revealed that the participants were equally distributed into two groups; while some teachers enjoyed degrees of positivity, some others described themselves as lacking positive emotions. Of course, the distribution of the participants' responses

across different points (strongly disagree to strongly agree) of the PERMA-Profiler (see Table 3) reveals that emotions should be viewed as a continuum of positivity and negativity rather than a matter of bipolar extremes. This is in line with Rusu and Colomeischi (2020), who believed in the concept of positivity ratio conceptualized as the balance between positive and negative emotions. They found that positivity ratio predicted work engagement, positive relations, meaningfulness, personal growth (accomplishment in PERMA terms), and overall well-being. Accordingly, Rusu and Colomeischi (2020) called for prevention and intervention programs with teachers.

As a response to the above call, the qualitative findings of the present study supported the critical role of intervention programs in developing positive emotions among teachers. As a skill that significantly improves positivity ratio, the focal participants of the study developed the ability to overcome negative emotions such as anger. They, additionally, felt happier and adopted optimistic viewpoints. The findings are in line with Yeh and Barrington's (2023) and Gabryś-Barker's (2022) observations regarding the role of concentrating on positive emotions in mitigating stress and emotional upheavals. Moreover, our findings support Seligman et al.'s (2009), Dewhirst et al.'s (2014), Vesely et al.'s (2014), Mercer et al.'s (2018), and Wang's (2022) proposition regarding the need to raise teachers' awareness of the potential of positive emotions through teaching (as a form of intervention). Furthermore, the teachers gained a better understanding of their students' emotions. The ability to understand one's own as well as others' emotions is termed EI by Petrides et al. (2007) and is recognized by Dewaele and Mercer (2018) as a determinant of positive emotions. The need to heighten EI through intervention has also been pinpointed by Dewaele et al. (2018a).

Regarding the *E* of the conceptual model, engagement, the quantitative results of the study showed that approximately one-third of the participants did not engage with EFL profession. This can be attributed to a myriad of contextual factors such as low income and extra workload already reported by Hiver and Dörnyei (2017), MacIntyre et al. (2019a, 2019b), Rahmati et al. (2019a), and Rahmati and Sadeghi (2021). On the other hand, over half of the participants of the quantitative phase demonstrated that they engaged with their profession. These contradictory views adopted by teachers working in identical contexts can be ascribed to variable individual characteristics and world views. Additionally, in the context of the present study, different stances regarding work engagement may stem from the fact that some EFL teachers working at private English schools actually experience the teaching of English as their second and complementary profession without being solely dependent on their teaching income.

Following the PP intervention, however, the focal participants reflected that they kindled interest in their profession, were committed to teaching, and spent more time to create funny activities for their classes. These findings confirm Derakhshan et al.'s (2023) results on the positive effects of interest and creativity on work engagement and support Fathi et al.'s (2023) model in which EFL teaching enjoyment was identified as an antecedent of work engagement. Most importantly, the intervention resulted in further engagement with the mainstream teacher training course, which justified the need for integrating PP into language teacher education programs, and

further echoed the calls made by Mercer et al. (2018) and Wang (2022), among others, for training on and raising awareness of emotions.

With respect to positive relationship, symbolized by the *R* in PERMA model, the quantitative phase revealed that most participants already enjoyed positive relations with other community members, which can be ascribed to social factors inherent in the context of the study. The Iranian society values family relations and support, which can often be trusted on. The intervention further assisted the focal participants in appreciating the value of positive relationship with students in the Iranian educational context in which teachers are often viewed as classroom authorities. The significant effect of positive relationship among community members (students and colleagues) on resolving professional contradictions and enhanced communication among community members has been reported by Rahmati and Sadeghi (2021), Gabryś-Barker (2022), Nadlifah et al. (2023), and Yeh and Barrington (2023).

Regarding meaning, the *M* in PERMA, the findings of both quantitative and qualitative phases of the study revealed that most participants believed that their life was meaningful. Teachers' reflections clarified that they viewed their profession a rewarding one through which they contributed to their students' lives. The ability to support others was similarly identified as a trigger for meaningfulness by the participants of Nadlifah et al.'s (2023) study. Furthermore, the focal participants of our study expressed that the PP intervention turned the mainstream teacher training course into a source of meaning for them as they had something to draw on for their professional growth. This served as another piece of evidence for the significance of integrating PP into EFL teacher education programs.

Accomplishment, represented by the *A* in our conceptual underpinning, was the last component of PERMA addressed in the current study. The quantitative phase showed that the participants were satisfied with their achievements. The focal participants of the qualitative stage reflected that they learned how to be positive and appreciate the value of their profession, which they were previously negligent of. Moreover, they observed that they made progress as a result of the intervention. The findings contradict the results of Nadlifah et al.'s (2023) study in which the teachers pointed that they had not made much progress though they were trying hard to obtain their goals. The contradiction between the current study and that of Nadlifah et al.'s (2023) can probably be ascribed to the difference between their loci; that is, our study elicited the accomplishments made by teachers as a result of the PP intervention whereas Nadlifah et al. (2023) focused on the accomplishments made by teachers throughout their life rather than a particular intervention.

The analysis of teacher reflections on the integration of PP in a teacher training course also revealed that such an integration positively influenced teachers' instructional effectiveness. The participants realized that teaching a language should not necessarily be reduced to the teaching of language skills, but it could involve various other components like having fun. This confirms MacIntyre et al.'s (2019a) view that posits language education can be expanded to include both teaching language (sub)skills and well-being. Moreover, EFL teaching enjoyment developed as a result of the PP intervention brought about foreign language learning enjoyment among learners. This confirms the positive relationship between

teaching enjoyment and learning enjoyment reported by Dewaele et al. (2019a, 2019b), Dewaele and MacIntyre (2019), and Jiang and Dewaele (2019), among others. PP opens new horizons in education to ascertain that individuals not only practice their professions effectively, but also develop the necessary positive experiences which support them globally and help them not just to survive but to thrive as well as support others to flourish.

The effects of a PP approach to teacher education on teachers' positivity as well as their instructional practice should be viewed cautiously, however. MacIntyre (2021) has warned that proponents of PP must avoid an unintended tyranny of positive thinking in which people are asked to be positive and elated all the time or consider the fact that PP is not a one-size-fits-all sort of endeavor. He has already pinpointed the need for PP to broaden its focus to second wave PP or PP 2.0. He has further referred to Wong (2011) who believes that PP 2.0 is more socially oriented and more comprehensive than the original concept of PP, meaning that positive and negative emotions are not in a seesaw relationship in which the presence of positive emotions indicates absence of negative emotions. Rather, the two types of emotions work in tandem in social contexts.

The significance of the study lies in its representation of an actual PP-incorporated teacher education course. Additionally, studying psychological variables like positive emotions can be very tricky due to their situational nature. The move to individualized instruction, particularly in studying psychological phenomena may stem from the difficulty of conducting studies like the current one, but this does not mean that the findings of the present study and future similar research do not contribute to enriching teacher education. This has been succinctly observed by Peterson (2006) who referred to familiarizing teachers of how to strengthen and facilitate a positive development as "mushrooming" effect (p. 311). The mushrooming effect can be elaborated through a hypothetical condition in which if only one language teacher familiarizes a group of 25 student teachers with PP principles and strategies each year over 25 years, the lives of 500 practitioners will be directly touched (MacIntyre et al., 2019b). These language teachers will influence their students and the impact will increase exponentially.

Moreover, since pedagogical practices tend to be significantly related to feelings of enjoyment as well as anxiety (Dewaele & MacIntyre, 2014; Dewaele et al., 2016), Dewaele and Alfawzan (2018) suggest that it is imperative for teacher education courses to pay due attention to these emotional factors to allow teachers to develop a positive classroom atmosphere. Arbaugh et al. (2015) have also found that one of the recurrent problems of teacher preparation courses is the thin foundation of research findings which inform such programs. Although previously the focus has been disproportionately on negative emotions, recently considerable research attention has been devoted to positive emotions. As Dewaele et al. (2019a) have reported, after the year 2016, we have witnessed a growing interest in the role of positive emotions in both teaching and learning through various publications, and an agenda for the application of PP in language education has already been set. Moreover, MacIntyre et al. (2019a) state that both research and teaching applications of PP are proliferating rapidly, and copious topics are being explored. The present findings and the findings of PP literature should be inspected closely and used as foundations upon which to design future teacher education programs.

Conclusion

The present study investigated whether EFL teachers possessed PERMA, which are believed to be essential for a successful social and professional life. Following a quantitative phase which led to the identification of three focal participants with a score of below the mean of a collection of observed scores on the PERMA-Profiler, and intervention was integrated into a teacher training program to raise the focal participants' awareness of the potentials of PP. The intervention lasted for six weeks during which the teachers were required to keep weekly reflective journals. The analysis of the participants' reflections revealed that their feelings about their career and how they could connect to their learners changed. They also experienced more positive emotions that they had been ignorant of previously.

The study, nevertheless, suffered a number of limitations. First, there were small number of participants in both the quantitative and qualitative phases of the study. This was mainly due to the nature of the study that had to be conducted at a particular institute and with a few accessible teachers because of feasibility considerations regarding the available time and logistics. Next, due to institutional limitations, the researchers could only work with female participants, which further compromises the generalizability power of the findings. Methodologically, an observational study in which the researchers could observe the participants while conducting their real classroom practice would certainly produce more reliable and generalizable results. Interviews could also help delve into the reason behind the lower level of positive emotions and engagement among the participants. Furthermore, the inclusion of a control group in the design of the study could assist the researchers in finding out the precise share of the intervention and the main training program in teachers' improved instructional practice. Even with its current design, however, extended use of fun in teachers' instructional practice can be attributed to the PP intervention because the use of fun was not addressed by the main teacher training program. Moreover, the frequency of humor in the academic context of Iran is found to be sporadic compared to the American and European academic contexts (Mohammadi & Rahmati, 2018). The short length of the intervention, which lasted for only six weeks, was another shortcoming of the study. The fact of the matter, however, is that the present researchers seized the opportunity to integrate PP in a real teacher training course in a real school setting rather than a study or context specifically designed for an experimental piece of research. Given that the study had to be conducted with the least interference with the school's instructional activities, the researchers could barely manipulate the setting to navigate its limitations.

Despite the above limitations, the findings of the study imply that a PP integrated teacher training course can foster positive emotions among teachers as well as help them regulate negative ones. Such an intervention also leads to increased engagement with the very training program and maximizes its effectiveness. Moreover, the study implies that raising EFL teachers' awareness of the potentials of PP enhances their interest in their profession, brings enjoyment, and fosters positive relationships between teachers and learners. These positive effects, in turn, spread among the students and improve learning outcomes. Broadly stated, a PP integrated teacher education program helps teachers develop PERMA and improves their decision-making power (Archer, 2012; Ryan & Bourke, 2013) regarding instructional practices, career engagement, overall social well-being, and professional effectiveness.

Future studies may follow an almost similar design with a large number of male and female participants and, thus, investigate possible effects of gender on the effectiveness of a PP integrated teacher training program. Methodologically, it is suggested that future researchers draw on the potentials of observations and interviews to enhance the depth of their findings and their generalizability value. Regarding quantitative data, future researchers may think of adding some items to the meaning component of the PERMA-Profiler to improve the reliability of that subscale. Longitudinal studies in which PP is used as a backbone for teacher education programs can also be conducted to assess the long-term effects of such programs on teachers' mindset and their practice. An experimental design, including a control and a treatment group would also yield more reliable results. As another option, collecting reflections from teachers who take the main training program and comparing those reflections with focal participants' reflections in terms of PERMA can also be highly illuminating. Regarding the components of PERMA, positive emotions and engagement have apparently received more research attention. Hence, future researchers are advised to explore the value of positive relationship, meaningfulness, and accomplishment and their interaction (i.e., correlation, effect, etc.) with other variables in instructional settings. Moreover, studies in which the relationship among the five components of PERMA are examined can be highly insightful. Hopefully, the findings of the current study and future relevant studies pave the ground for the realization of the benefits of PP in improving teachers' and learners' positivity, well-being, and sense of accomplishment.

Supplementary Information

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Additional file 1. Appendix: The PERMA-Profiler (adapted from Kern et al., 2014).

Author contributions

EO conceived the research idea and wrote the research proposal. TR and MN read the proposal and commented on it. EO, TR and MN collected the data and helped with the data analysis and interpretation. EO wrote up the first draft of the paper which was revised by TR and MN multiple times. All the authors approved the final draft and MN submitted the manuscript.

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Availability of data and materials

The data sets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Declarations

Competing interests

The authors declare that they have no competing interests.

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