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# **Can engagement and performance be improved through online training on emotional intelligence? A quasi-experimental study**

## **Abstract**

*Purpose:* Online learning is an effective training strategy to help students, as one of the success factors is academic engagement. Therefore, the use of online training courses to influence academic engagement and performance in emotional intelligence learning experiences is worthy of investigation. This study explores the influence of emotional intelligence as an online training course and its impact on academic engagement and learning outcomes - performance.

*Methodology:* We used a quasi-experimental study with two groups of participants who were randomly assigned (experimental e control) and with pretest-posttest measurements of the online training. The emotional intelligence online training (for the experimental group) was conducted during a single semester, with eight hours of training. The methodology of reflective, role-playing, case study and group work was followed. Measurements of student academic engagement and emotional intelligence were collected before (one week before the training) and after the intervention (on the last training session). Performance was measured after the intervention.

*Findings:* The mean scores improved for all the variables, with the differences being statistically significant. The students assessed their learning positively. The results also showed that emotional intelligence was positively related to academic engagement but not to performance. This means that emotional intelligence training was effective in increasing the academic engagement of university students.

*Implications:* The results are promising in terms of the students retaining the competencies acquired. Therefore, this type of online training is recommended for the emotional intelligence and academic engagement of future human resources

professionals. Moreover, according to the results, it would be possible to use emotional intelligence training programs in schools, besides other programs, to promote the academic engagement and performance of students.

*Originality:* The design of the study provides evidence that is an added value for higher education institutions.

**Keywords:** Emotional intelligence; Academic engagement; Performance; Online training; Quasi-experimental design.

## **Introduction**

Technology has given rise to innovative learning paths, such as the e-learning system (online learning), which occupies a predominant position (Mouzakitis, 2009). E-learning is described as instructional content or learning experiences enabled by the internet to enhance an individual's knowledge and performance (Pantazis, 2001).

One of the key factors for academic performance is academic engagement (Junça-Silva & Lopes, 2021). This is a positive affective state characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). According to Bakker and Leiter (2010), engagement is a crucial factor for development and performance. Bagyo (2013) also showed that engagement positively influences performance. In 2012, Carly highlighted that one way to improve engagement is through training. Likewise, Elnaga and Imran (2013) showed that training is one practice that positively affects engagement, as well as knowledge and skills, resulting in higher performances.

Engagement has also been related to emotional intelligence (EI) (Barreiro & Treglown, 2020). Diverse studies on emotional intelligence and engagement have shown that both concepts are related to higher performance (Llorens et al., 2006). For example, emotionally intelligent individuals tend to have higher performance ratings

than those with lower EI (Law et al., 2004; Lopes et al., 2006; Van Rooy & Viswesvaran, 2004).

Although several studies demonstrate that the training's effectiveness is associated with improvements in engagement, and consequently, performance, there are still not many studies focused on online training, and how this kind of training can improve academic engagement (e.g., Fletcher, 2016). Moreover, most studies have been focused on a pre-covid time, occurred in the boom of engagement literature, are correlational in nature, and only analyze the relationship between training, as a recalled practice, and other variables, such as engagement (e.g., Barreiro & Treglown, 2020). In addition, there are few studies with a quasi-experimental design to study these relationships. Thus, to contribute to increasing knowledge about the impact of EI online training on engagement and performance, a quasi-experimental study in a higher education setting was developed. We resorted to two groups of participants from a master's course in human resources management that were randomly assigned: a control (composed of master's students that did not receive any kind of training) and an experimental group (including master's students that received online training in IE). We aimed to analyze the influence of EI as an online training course and its impact on academic engagement and performance.

### **Theoretical background**

Gordon (1992) defined training as a planned and systematic modification of behaviors through learning events, activities, and programs that result in the achievement of high levels of knowledge, skills, and competencies.

Hall and LeCavalier (2000) attributed the savings of some organizations to the results of converting their traditional training methods into e-learning. For example, in 1999, IBM saved \$200 million, providing five times the learning, at one-third the cost

of traditional methods. Using a combination of online (80%) and in-person (20%) training, Ernst & Young reduced training costs by 35% while improving consistency and skills.

In addition to the generally positive economic benefits, there are other advantages, such as convenience, standardized training, individualized learning, and a variety of available content, that have made e-learning a priority for many companies. Much of the discussion about e-learning has focused on technology, but as Driscoll (2001) pointed out, e-learning is not just about technology, but also about human factors. The use of e-learning is increasing. For example, Forrester, a research firm that helps companies assess the effect of technology change on their operations, interviewed training managers in 2,500 companies and found that all but one of them already had online training (Dalton, 2000). A study of 500 pedagogical directors (Online Learning News, 2001) showed that: (1) 70% had already been trained in e-learning; (2) 6% to 8% had the priority of converting face-to-face sessions to e-learning sessions; (3) 80% aimed to expand knowledge management programs, and; (4) 78% were improving e-resources. Barron (2001) revealed that technology has been increasingly able to “demonstrate broader cost and benefit savings, develop integrated offerings, and propose innovative ways of applying e-learning” (p. 3).

There is evidence of the positive effects of training on individual (Purcell et al., 2003) performance. For example, Wright and Geroy (2001) found that individuals’ skills improved through effective training programs. Training appears to affect performance, through the development of knowledge, skills, competencies, and behaviors (Appiah, 2010). According to Wright and Geroy (2001), skills are developed through training programs. These not only improve performance, but also increase knowledge, skills, and attitude.

## **Emotional Intelligence (EI) and Engagement**

Emotional intelligence has emerged as a research field in the last two decades. It is a psychological concept that refers to the effective integration of emotion and thought (Mayer, et al., 2000). It is related to interpersonal skills (Bar-On, 2000; Goleman, 1995), such as empathy, and has been conceptualized as competence and a trait (Neubauer & Freudenthaler, 2005; Petrides & Furnham, 2003; Schutte et al., 2009).

Salovey and Mayer (1990), in their theory of emotional intelligence (EI four-branch model), argued that emotional intelligence is the ability to process emotional information regarding the perception, assimilation, expression, regulation, and management of emotions (Bracett et al., 2006). This model postulates that EI consists of four interrelated processes: (a) accurately perceive emotions in oneself and others, that is, recognizing facial and voice “cues” related to other’s emotions and awareness of own bodily states inherent to emotions; (b) use emotions to support thinking and decision-making, that is, harnessing the effects of emotions, for example, using positive humor to enhance creative thinking; (c) understand emotions in oneself and others, that is knowing the causes and consequences of different emotions, as well as being able to differentiate between them; and (d) effectively manage emotions, in oneself and others, that regulates emotions to make them compatible with a situation demands, or with an individual’s goals (Goleman, 1995). These processes are components of emotional information processing and are interrelated so that more integrated processes, such as understanding emotions, are based on more basic processes, such as perception of emotion (Goleman & Boyatzis, 2017).

Thus, the EI involves a set of mental skills in which individuals employ higher-level processes about being attentive to their emotions, clarity, discriminative capacity for emotions, and mood regulation strategies (Bracett & Mayer, 2003). It also involves

the ability to emotionally reason and uses emotions and emotional knowledge to improve thinking (Lopes et al., 2005). Emotionally intelligent individuals have often been described as well-adjusted, affable, genuine, persistent, and optimistic (Ivcevic et al., 2007). EI has also been identified as a significant predictor of performance (Clarke, 2006; Tucker & Sojka, 2000).

Although there are researchers who argued that the development of emotional intelligence is a natural process (e.g., Schutte et al., 2009) there are empirical studies that showed that training in EI can increase its levels and contribute to performance (Clarke, 2010; Meirav Hen, et al., 2014; Nelis et al., 2009). For example, Schutte et al. (2013) observed an increase in EI levels after EI training. For example, Vesely et al. (2014) administered a five-week training program for 23 applicants to professors at two Canadian universities. During the training, participants received an hour and a half of training per week, consisting of workshops, group discussions, practical exercises, and homework. Participants in the experimental group (the one with training) showed significant differences in EI levels between pre-and post-test, while participants in the control group (untrained) did not show significant differences in EI. Al-Faouri et al. (2014) provided EI training to 70 students at a university hospital, for two hours per day, for seven weeks and showed an increase in EI. Similarly, Meirav-Hen and Sharabi-Nov (2014) showed increases in EI and empathic concern from the beginning to the end of an EI course. Thus, we expect that:

**Hypothesis 1:** There will be significant differences in EI before and after training, in such a way that EI will be higher after training (when compared to its levels before training).

### **Academic engagement**

Engagement has become a popular concept for researchers and practitioners (Whittington & Galpin, 2010). Academic engagement refers to the quality of an attempt that students spend on purposeful learning activities so that they could directly contribute to the achievement of desired results (Richardson, et al., 2003). It was defined as a “positive, fulfilling work-related state of mind ... that is not focused on any particular object, event, individual, or behavior” (Schaufeli et al. 2002, p. 74). It is focused on the broad scope of tasks at hand and manifests as a higher-order attitudinal state that comprises three dimensions: feeling energized and vigorous (vigor); feeling proud of and dedicated to one’s work (dedication) and feeling absorbed and immersed in one’s work (absorption). Thus, engagement represents a sense of energy and identification with the tasks at hand (Schaufeli & Bakker, 2010).

Cardus (2013) suggested that one way to improve engagement is through training. Empirical studies have demonstrated this. For instance, Zadeh et al. (2014) demonstrated that successful intelligence training was effective in increasing the academic motivation and academic engagement of students. Similarly, Roberts, et al. (2019) evidenced that self-management interventions with peer training improved academic engagement. In 2018, Yarahmadi et al. demonstrated that buoyancy training positively predicted academic engagement and performance among students. Thus, considering the empirical evidence, we expect that:

**Hypothesis 2:** There will be significant differences in the level of engagement before and after training, in such a way that engagement will be higher after training (when compared to its levels before training).

### **The relationship between EI and engagement**

EI can be considered a personal resource, known for promoting positive attitudes and increasing employee performance, resulting in a more engaged workforce (Akhtar



et al., 2015). Emotionally intelligent individuals are known to initiate more effective communication with their peers, which in turn increases their emotional resources, increasing their dedication and vigor at work (Akhtar et al., 2015).

EI skills increase self-awareness and engagement to facilitate self-regulation and relationships with others. As EI is focused on understanding and managing the involvement of oneself and others, it involves connecting the self to its organizational role. Thus, it is expected that EI will facilitate the connection between the individual and his/her context (Ravichandran et al., 2011).

Some studies have shown that behavioral skills such as communication and the ability to give feedback positively influence engagement levels (Kular et al., 2008). There is also evidence of the relationship between EI, engagement, and performance (O'Boyle et al., 2011). So, it makes sense that there might be a relationship between engagement and emotional skills. This should allow an individual to form, develop and manage positive relationships with others (Goleman et al., 2002). As such, it is expected that:

**Hypothesis 3:** EI is positively related to engagement.

### **The relationship between EI and performance**

As already mentioned, EI refers to skills related to the recognition and regulation of emotions in oneself and others and is used to guide thought and actions (Giardini & Frese, 2008; Mayer et al., 2008).

Many researchers have demonstrated a positive relationship between EI and performance. For example, Lam and Kirby (2002) and Semadar et al. (2006) showed that EI was the best predictor of performance, as it could influence individuals' behavior, and allow them to understand and appropriately deal with their emotions. An

emotionally intelligent person can easily achieve their personal and academic goals (Michinov & Michinov, 2020).

Furthermore, EI is relevant for predicting performance because it is positively related to the quality of interpersonal interactions, with goal attainment, and because in an academic context there is the need to effectively deal with emotions (Goleman, 1995; MacCann et al., 2020). Diverse empirical studies have demonstrated a positive relationship between EI and performance (Cote & Miners, 2006; Semadar et al., 2006; Sánchez-Álvarez et al., 2020). Moreover, to achieve exceptional performance, emotional competence, which is a learned ability based on emotional intelligence, is equally important (Goleman, 1998). Thus, it is expected that:

**Hypothesis 4:** EI is positively related to performance.

## **Method**

### **Research design**

This study was conducted in a higher education institution. It consisted of a quasi-experimental study with a pretest (one week before the study) and posttest measurements (at the end of the last session of the training) with two groups, an experimental and a control group. The experimental group had EI training, and the control group did not receive any training. Participants were students from a master's course on human resources management and were randomly assigned to the groups.

### **Setting**

The study was conducted in the School of Management of a Public University in northeast Portugal (Instituto Politécnico de Tomar [Tomar Polytechnic Institute]).

### **Participants**

The sample consisted of 67 students attending the 2<sup>nd</sup> academic year of the master's degree in Human Resources Management. From the overall sample, 33

students were randomly assigned to the experimental group and 34 to the control group.

We inserted the student number in a site to randomly assign them

(<https://www.sorteio.go.com/pt/sorteio/nomes>). In total, 70% were female, with a mean age of 30.85 years ( $SD = 12.14$ ).

Both groups answered two online questionnaires (pre and post-test). The first questionnaire measured engagement and EI and was applied one week before the training started, and the second one measured engagement, EI, and performance (and was applied at the end of the last training session). Before answering the pretest questionnaire, participants were informed about the confidentiality and anonymity of their responses. Of the overall 68 participants that agree with the intervention, only 67 responses were considered valid for analysis (response rate = 98.5%).

### **Recruitment**

The students were enrolled in an 8-hour Emotional Intelligence Training which was part of the scheduled teaching activities. During the subject presentation (coinciding with the pretest evaluation), the students were informed of the training objectives, schedule, and methodology to be followed. Participation was voluntary.

### **Training**

The EI training was performed in the first semester of 2020 by a university teacher with specific training in emotional intelligence (a Ph.D. in Psychology) and consisted of one weekly session of two hours, for a total of 4 sessions (8h). Table 1 presents, in detail, the content of each of the sessions. For the sessions, the methodology of simulation through role-playing — which has been shown to favor the learning of EI (Bosse et al., 2012) — case study, and group work were followed. Reflective writing was also included because the evidence shows that it can increase EI (Ozcan et al., 2011). Before the sessions, documentation was provided, and questions were clarified.

## **Instruments**

*Academic engagement.* We used the Utrecht Work Engagement Scale for students (UWES-9S; Schaufeli et al., 2006). The scale is a 9-item self-report scale grouped into three subscales with three items each: vigor (e.g., “When I’m doing my work as a student, I feel bursting with energy”), dedication (“My studies inspire me”), and absorption (“I feel happy when I'm studying intensely”). All items were scored on a 7-point scale, which ranged from 0 (*never*) to 6 (*always*). The scale showed a good internal consistency as the alphas ranged between .89 and .92.

*Emotional Intelligence.* To measure EI, we used the Self-Report Emotional Intelligence Test (SSEIT; Schutte et al., 1998). The scale was based on the EI model developed by Salovey and Mayer (1990) and includes 33 items that measure the assessment, expression, regulation, and use of emotions (e.g., “I know when to talk about my personal problems to others”). Participants responded on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale demonstrated good reliability, with Cronbach’s alpha ranging between .87 and .90.

*Performance.* To measure performance, we used the EI knowledge test (Conquer, 2020). This aimed to assess the degree of knowledge in EI through eight items. The answers were given through the alternatives of true (V) or false (F) (e.g., “Communication is not critical to emotional intelligence”). The internal consistency was .90.

*Training evaluation.* To assess the intervention (in the experimental group), we used the Four-Level Training Evaluation Model by Kirkpatrick (1994). We used 10 items that measured the participant's satisfaction with the training, the goals, training length, the trainer’s performance, adequacy of knowledge to the needs, the acquired knowledge, the usefulness of the contents for performance, the use of pedagogical

dynamics, and clarity of content. An item example was “The training objectives were clearly defined”. Items were answered on a 5-point Likert scale (1 - *totally disagree*; 5 - *totally agree*). The Cronbach’s alpha was .90.

### **Data analyses**

The data were analyzed with the SPSS® version 27. A univariate descriptive analysis was performed to determine the distribution of the sample in each of the variables studied (IE, academic engagement, and performance). In this first level, the descriptive statistics and Pearson’s correlation were analyzed. To verify the efficacy of the intervention, the t-test was applied to two independent samples.

## **Results**

### **Descriptive statistics**

Table 2 shows the pretest-posttest descriptive statistics for the different measurements evaluated.

INSERT TABLE 2

### **Comparison of the means between the experimental and control group**

Before testing our hypotheses, we analyzed whether there were differences among the variables under study (engagement, EI and performance) between the two groups of participants (control and experimental). Results showed that the experimental group scored higher in engagement, EI, and performance (both at the pre and post-test) than the control group (see Table 3). However, these were non-statistically significant differences: academic engagement<sub>pre</sub> ( $F_{(65)} = .18, p > 0.05$ ) and academic engagement<sub>post</sub> ( $F_{(65)} = 1.00, p > 0.05$ ); EI<sub>pre</sub> ( $F_{(65)} = 1.77, p > 0.05$ ), and EI<sub>post</sub> ( $F_{(65)} = .83, p > 0.05$ ); and performance<sub>post</sub> ( $F_{(65)} = .13, p > 0.05$ ).

INSERT TABLE 3

### **Hypotheses testing**

Hypothesis 1 suggested that the levels of EI at the end of the training would be significantly higher than at the beginning of the training. The mean score of the students' EI before training was 3.81 and after it was 4.00. Plus, the t-test results showed that this difference was statistically significant ( $t_{(66)}=71.518, p<.001$ ). Thus, hypothesis 1 was supported.

Hypothesis 2 suggested that academic engagement would significantly increase from pre to post-test. The findings showed that before training, engagement was lower ( $M = 4.40$ ) than after training ( $M = 4.74$ ). The t-test results showed that this difference was statistically significant ( $t_{(66)}=35.32, p<.001$ ). When analyzing each dimension of engagement, we also found a significant increase between pre and post-test: vigor:  $M_{pre}=4.24, M_{post}=4.51$ ; absorption:  $M_{pre}=4.34, M_{post}=4.53$ ; dedication:  $M_{pre}=4.38, M_{post}=4.63$ . The t-test also evidenced that these differences were statistically significant: vigor:  $t_{(66)}=33.85, p<.001$ ; absorption:  $t_{(66)}=33.95, p<.001$ ; dedication:  $t_{(66)}=31.46, p<.001$ .

Hypothesis 3 suggested that EI would be positively related to engagement. The results showed a positive and statistically significant correlation between the EI score and engagement at pre and post-test ( $r_{pre}=.49, p<.001$ ;  $r_{post}=.35, p<.001$ ), lending support for hypothesis 3.

Hypothesis 4 suggested that EI would be positively associated with performance. The results showed that there was no correlation between the EI score and performance ( $r=.006, p>.05$ ). Thus, H4 was not supported (table 4).

INSERT TABLE 4

## Discussion

Despite the considerable research demonstrating the positive effects of training on engagement and EI, most of these studies were conducted in a pre-COVID phase and

have been less focused on online training (e.g., Gebler et. al., 2020). Hence, this study follows a quasi-experimental design to explore the role of EI online training on higher education students' engagement and performance. To do so, this research is based on an 8-hour EI online training with a control and an experimental group.

The findings evidence non-statistically significant differences between groups – the experimental and the control group. However, it is relevant to consider that participants from the experimental group score higher on their levels of EI, academic engagement, and performance, when compared to those in the control group. Thus, despite the differences not being statistically significant, this higher level may have, in a way, biased the results - differential selection error (Mertens, 2010).

First, the results show that, before training, the students' EI score was lower than after training. Thus, online training, even with a short duration, has positive effects on interpersonal skills, such as EI. This result is in line with other studies; for example, Schutte et al. (2013) showed that training is one of the main predictors of EI development. Also, Gebler et. al. (2020) showed that short-training courses in EI improved individuals' emotional skills. In a similar vein, Meirav-Hen and Sharabi-Nov (2014) demonstrated that EI training was effective to improve EI and empathy. As such, EI training may be an effective strategy to enhance the EI levels of higher education students.

Second, the results evidence the existence of significant differences in the levels of engagement, before and after training. Indeed, the levels of academic engagement significantly improved after the online training (when compared to its baseline levels). Therefore, online training courses contribute to the development of various interpersonal skills, such as engagement. This is consistent with Shantz et al.'s (2013) suggestion - that engagement tends to improve, with more training and development

opportunities. Also, Sendawula et al. (2018) showed that training, not only contributed to engagement improvement but was also associated with higher levels of performance. Gascó-Hernandez et al. (2018) showed the same pattern of results. Thus, one can conclude that online training can be an effective strategy to develop engagement.

Third, the results show a positive and statistically significant relation between EI and engagement. In other words, when EI increases, academic engagement also tends to increase. This is consistent with empirical studies. For instance, Pérez-Fuentes et al. (2018) showed that higher levels of EI were associated with higher levels of engagement. Also, Mérida-Lopez et al., 2017, showed that EI was a predictor of engagement levels, even in adverse and stressful situations. Indeed, individuals with higher levels of EI tend to have greater ease of communication and broader emotional resources, which can be an asset to increase vigor, dedication, and absorption when performing tasks. This is in line with Akhtar et al. (2015), who showed that emotionally intelligent individuals tend to initiate more effective communication with their colleagues, which in turn improves their emotional resources, developing their dedication and vigor. Similarly, Shantz et al. (2013) showed that individuals with higher levels of engagement and EI tended to have a more positive attitude, making them psychologically present and dedicated. Zhu, et al. (2015) showed a direct and indirect impact of EI on engagement, through the perception of equity. Thus, we can conclude that EI is positively related to academic engagement.

Fourth, the last hypothesis suggested that EI would have a positive relationship with performance. However, the results show that, in this study, EI is not significantly related to performance. This result is not in line with what was expected, as there are diverse empirical studies demonstrating the opposite (e.g., Bar-On et al., 2006; Udayar et al., 2020). For instance, Lam and Kirby (2002) and Semadar et al. (2006) showed that



EI significantly predicted performance because it allows individuals to better understand and effectively deal with their emotions, thus influencing their behaviors. We believe that this result might have been due to the instrument used to assess performance (EI's knowledge assessment). As the online training course was more practical, maybe performance should have been assessed with a behavioral assessment, such as observation (Bas-Sarmiento et al., 2017).

In sum, online training courses, even with a short duration may be a suitable strategy to improve EI and engagement in higher education settings. Moreover, when EI is higher, students also benefit in their levels of academic engagement, as there is an association between EI and the three dimensions of academic engagement: vigor, dedication, and absorption.

### **Limitations and future directions**

Despite the positive characteristics of this study (being a quasi-experimental study with two groups), there are some limitations. First, the sample is relatively small and is not representative of the entire university (as it only includes master' students in Human Resource Management). The small sample size might have influenced the results of the fourth hypothesis.

Second, during the data collection, the country was in complete lockdown, and the inability to collect data in person, and from more students, turned out to be unfeasible. Future studies should use a larger sample with a more representative group and use a design 2x2 (low and high EI).

Third, we only analyzed EI and academic engagement. However, other characteristics may be equally important in predicting performance in a training context. Thus, future studies could replicate this study with other variables (e.g., psychological capital), about other criterion variables, such as well-being, satisfaction, and creativity.

Fourth, to measure performance we used the EI knowledge assessment which might have biased the results as we developed a practical training program, instead of a theoretical one. Therefore, future studies would consider the use of a behavioral assessment to analyze performance as a learning outcome.

### **Practical implications**

The results enlarge knowledge about the relationship between EI online training, engagement, and performance. Research demonstrates that EI training improves not only EI levels but also engagement. It is important to emphasize that training materials and design must be effectively implemented. Engagement, on the other hand, has a positive relationship with EI, therefore, EI will facilitate the connection between the individual and the course activities (Ravichandran et al., 2011), being an asset for the student (Bakker et al., 2008) and a competitive advantage for the university.

It is important that universities - whether private or public - implement good training plans, considering the needs of their students and courses, and the resources and materials available. Given this, the student's attitudes and behaviors will tend to be positive, leading them to reciprocate the resources and personal valuation that the university spends on them – as in a process of social exchange (Blau, 1964; Junça-Silva & Silva, 2021). These consequences will be favorable, not only in terms of well-being, but also for the success, competitiveness, and development of the university.

### **Conclusion**

Training impacts engagement and EI levels. Indeed, training not only encourages learning but also develops skills (Wright & Geroy, 2001). The results of this study reveal that training provides favorable conditions for academic (results) and personal (skills) gains. On the other hand, the knowledge acquired through training will allow the individual to become more efficient. As such, it is essential that universities

establish training assessment policies and procedures, to promote development, and qualification through the integration of processes that, as a result, meet the training needs of their students. We consider the usefulness of our training for the teaching of EI in the curricula of HRM master's degrees given the high demands that are required in professional activities.

### References

- Akhtar, R., Boustani, L., Tsivrikos, D., & Chamorro-Premuzic, T. (2015). The engageable personality: Personality and trait EI as predictors of work engagement. *Personality and Individual Differences, 73*, 44-49.
- Al-Faouri, I., Al-Ali, N., & Al-Shorman, B. (2014). The influence of emotional intelligence training on nurses? Job satisfaction among Jordanian nurses. *European Journal of Scientific Research, 117*, 486–494.
- Al-Furaydi, A.A. (2013). Measuring E-Learning Readiness among EFL Teachers in Intermediate Public Schools in Saudi Arabia. *English Language Teaching, 6*, 110-121.
- Appiah, B. (2010). *The impact of training on employee performance: A case study of HFC Bank (Ghana) Limited*. Ashesi University College.
- Bagyo, Y. (2013). Engagement as a variable to improve the relationship between leadership, and organizational culture on the performance of employees. *Journal of Business and Management (IOSR-JBM), 14*(4), 01–08.
- Bakker, A. B., & Leiter, M. P. (2010). *Work engagement: A handbook of essential theory and research*. New York, NY: Psychology Press.
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health and psychology. *Work & Stress, 22*(3), 187-200.

- Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory, In R. Bar-On & J.D.A. Parker (Eds.), *The handbook of emotional intelligence*, 363-388. San Francisco: Jossey-Bass.
- Bar-On, R. (2006). The Bar-On Model of Emotional-Social Intelligence. *Psicothema*, 18, 13-25.
- Barreiro, C. A., & Treglown, L. (2020). What makes an engaged employee? A facet-level approach to trait emotional intelligence as a predictor of employee engagement. *Personality and Individual Differences*, 159, 109892. <https://doi.org/10.1016/j.paid.2020.109892>
- Barron, T. (2001). An e-learning industry update. *ASTD Learning Circuits*.
- Bas-Sarmiento, P., Fernández-Gutiérrez, M., Baena-Baños, M., & Romero-Sánchez, J. M. (2017). Efficacy of empathy training in nursing students: A quasi-experimental study. *Nurse Education Today*, 59, 59-65. <https://doi.org/10.1016/j.nedt.2017.08.012>
- Brackett, M. A., & Mayer, J. D. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin*, 29, 1147–1158.
- Brackett, M. A., Rivers, S. E., Shiffman, S., Lerner, N., & Salovey, P. (2006). Relating emotional abilities to social functioning: A comparison of self-report and performance measures of emotional intelligence. *Journal of Personality and Social Psychology*, 91, 780–795.
- Bucciarelli, E., Muratore, F. & Odoardi, I. (2010). Consolidation processes of human capital in modern economic growth dynamics: an estimate based on the role of European corporate e-learning activities. *Procedia - Social and Behavioral Sciences*, 9, 622-627.

- Cardus, M. (2013). The five levers of employee engagement. *The Journal for Quality & Participation*, 28-31.
- Carly. (2012). *Total Learning*. Retrieved from <http://blogs.terrapinn.com/totalllearning/>
- Clarke, N. (2006). Emotional Intelligence Training: A Case of Caveat Emptor. *Human Resource Development Review*, 5, 422-441.
- Clarke, N. (2010). The impact of a training programme designed to target the emotional intelligence abilities of project managers. *International Journal of Project Management*, 28, 461–468.
- Conquer. (2020). *Teste de Conhecimentos em IE*. Retrieved from: <https://online.escolaconquer.com.br/soft-skills/inteligencia-emocional/>
- Cote, S., & Miners, C.T.H. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative Science Quarterly*, 51, 1–28.
- Dalton, J. P. (2000). Online Training Needs a New Course: *The Forrester Report*. Cambridge: Forrester.
- Driscoll, M. (2001). Building better e-assessments. *ASTD Learning Circuits*.
- Fletcher, L. (2016). Training perceptions, engagement, and performance: Comparing work engagement and personal role engagement. *Human Resource Development International*, 19, 4-26.
- Geßler, S., Nezlek, J. & Schuetz, A. (2020). Training emotional intelligence: Does training in basic emotional abilities help people to improve higher emotional abilities? *The Journal of Positive Psychology*, 1-10.
- Giardini, A., & Frese, M. (2008). Linking service employees' emotional competence to customer satisfaction: A multilevel approach. *Journal of Organizational Behavior*, 29, 155–170.
- Goleman D (1998). *Working with emotional intelligence*. New York: Bantam Books

- Goleman, D. (1995). *Emotional Intelligence: Why it can matter more than IQ*. New York: Bantam Books.
- Goleman, D., & Boyatzis, R. (2017). Emotional intelligence has 12 elements. Which do you need to work on. *Harvard Business Review*, 84(2), 1-5.
- Goleman, D., Boyatzis, R., & McKee, A. (2002). *Primal Leadership: Realizing the Power of Emotional Intelligence*. Boston, MA: Harvard Business School Press.
- Gordon, M. (1992). *The Handbook of Human Resource Planning*. Oxford: Blackwell Business Publishers.
- Haywood, K. M. (1992). Effective Training: Toward a Strategic Approach. *Cornell Hotel and Restaurant Administration Quarterly*, 33(6), 43–52.
- Ivcevic, Z., Brackett, M. A., & Mayer, J. D. (2007). Emotional intelligence and emotional creativity. *Journal of Personality*, 75, 200–236.
- Kenney, J., & Reid, M. (1986). *Training Interventions*. London: Institute of Personnel Management.
- Khan, A. L., Osama, S., Waseem, R. M., Ayaz, M., & Ijaz, M. (2016) Impact of Training and Development of Employees on Employee Performance through Job Satisfaction: A Study of Telecom Sector of Pakistan. *Macrothink Institute Business Management and Strategy*, 7(1), 29-46.
- Kinicki, A., & Kreitner, R. (2007). *Organizational Behavior*. New York: McGraw-Hill.
- Kirkpatrick, D. L. (1994). *Evaluating Training Programs: The Four Levels*. San Francisco: Emeryville, CA: Berrett-Koehler.
- Kular, S., Gatenby, M., Rees, C., Soane, E., & Truss, K. (2008). *Employee Engagement: A Literature Review*. Kingston University, Kingston Business School.
- Lam, L. T., & Kirby, S. L. (2002). Is emotional intelligence an advantage? An

- exploration of the impact of emotional and general intelligence on individual performance. *The Journal of Social Psychology*, 142, 133–143.
- Law, K. S., Wong, C. S., & Song, L. J. (2004). The Construct and Criterion Validity of Emotional Intelligence and Its Potential Utility for Management Studies. *Journal of applied Psychology*, 89(3), 483.
- Llorens, S., Bakker, A. B., Salanova, M., & Schaufeli, W. B. (2006). Testing the robustness of the job demands–resources model. *International Journal of Stress Management*, 31, 378–391.
- Lopes, P. N., Grewal, D., Kadis, J., Gall, M., & Salovey, P. (2006). Evidence that emotional intelligence is related to job performance and affect and attitudes at work. *Psicothema*, 18, 132-138.
- Lopes, P. N., Salovey, P., Côté, S., & Beers, M. (2005). Emotion regulation abilities and the quality of social interaction. *Emotion*, 5, 113–118.
- Lynton, R. P., & Pareek, U. (2001). *The Human Resource Development Handbook*. London, UK: Kogan Page Ltd.
- MacCann, C., Jiang, Y., Brown, L. E. R., Double, K. S., Bucich, M., & Minbashian, A. (2020). Emotional intelligence predicts academic performance: A meta-analysis. *Psychological Bulletin*, 146(2), 150–186. <https://doi.org/10.1037/bul0000219>
- Mansour, M. (2009). *Employees Perception and Satisfaction about e-Learning in the Workplace*. Reading: Academic Conferences Ltd.
- Mayer, J. D., Salovey, P., & Caruso, D. (2000). Models of emotional intelligence. In R.J. Sternberg (Ed.), *Handbook of Intelligence*, 396–420. Cambridge University Press.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2008). Emotional Intelligence: New ability

- or eclectic traits? *American Psychologist*, 63, 503-517.
- Michinov, E., & Michinov, N. (2020). When emotional intelligence predicts team performance: Further validation of the short version of the Workgroup Emotional Intelligence Profile. *Current Psychology*, 1-14.  
<https://doi.org/10.1007/s12144-020-00659-7>
- Mihartescu, A. A., Negrut, M. L., & Mazilescu, C. A. (2010). From traditional learning to elearning. *Quality Management In Higher Education*, 2, 523-526.
- Mouzakitis, G. (2009). E-Learning: The six important “Wh...?”. *Procedia - Social and Behavioral Sciences*, 1 (1).
- Nelis, D., Quoidbach, J., Mikolajczak, M., & Hansenne, M. (2009). Increasing emotional intelligence: (How) is it possible? *Personality and Individual Differences*, 47, 36–41.
- Neubauer, A. C., & Freudenthaler, H. H. (2005). Models of emotional intelligence. In R. Schultz & R. D. Roberts (Eds.), *Emotional intelligence: An international handbook*, 31-50. Cambridge, MA: Hogrefe.
- O’Boyle, E. H., Humphrey, R. H., Pollack, J. M., Hawver, T. H., & Story, P. A. (2011). The relation between emotional intelligence and job performance: a meta-analysis. *Journal of Organizational Behavior*, 32, 788–818.
- Online Learning News. (2001). Blending and Spending. *Online Learning News*, 4(13). Retrieved from: [www.vnulearning.com](http://www.vnulearning.com).
- Pantazis, C. (2001). *Executive summary: A vision of E-learning for America’s workforce*. Report of the Commission on Technology and Adult Learning, ASTD.
- Petrides, K.V., & Furnham, A. (2003). Trait emotional intelligence: Behavioral validation in two studies of emotion recognition and reactivity to mood



- induction. *European Journal of Personality*, 17, 39-57.
- Purcell, J., Kinnie, N., Hutchinson, S., Rayton, B., & Swart, J. (2003). *Understanding the people and performance link: unlocking the black box*. Chartered Institute of Personnel and Development.
- Ravichandran, K. K., Arasu, R. R., & Arun Kumar, S. S. (2011). The impact of emotional intelligence on employee work engagement behavior: an empirical study. *International Journal of Business & Management*, 6, 157–169.
- Roberts, G. J., Mize, M., Reutebuch, C. K., Falcomata, T., Capin, P., & Steelman, B. L. (2019). Effects of a self-management with peer training intervention on academic engagement for high school students with autism spectrum disorder. *Journal of Behavioral Education*, 28(4), 456-478.  
<https://doi.org/10.1007/s10864-018-09317-2>
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9(3), 185–211.
- Sánchez-Álvarez, N., Berrios Martos, M. P., & Extremera, N. (2020). A meta-analysis of the relationship between emotional intelligence and academic performance in secondary education: A multi-stream comparison. *Frontiers in psychology*, 11, 1517. <https://doi.org/10.3389/fpsyg.2020.01517>
- Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout and: A confirmative analytic approach. *Journal of Happiness Studies*, 3, 71-92.
- Schaufeli, W., & Bakker, A. (2010). Defining and measuring work engagement: Bringing clarity to the concept. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 10-24). New York, NY: Psychology Press.

- Schutte, N. S., Malouff, J. M., & Bhullar, N. (2009). The Assessing Emotions Scale. In C. Stough, D. Saklofske & J. Parker (Eds.), *The Assessment of emotional intelligence*, 119-135. New York: Springer.
- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25, 167–177.
- Schutte, N. S., Malouff, J. M., Thorsteinsson, E. B. (2013). Increasing emotional intelligence through training: Current status and future directions. *The International Journal of Emotional Education*, 5, 56–72.
- Semadar, A., Robins, G., & Ferris, G.R. (2006). Comparing the validity of multiple social effectiveness constructs in the prediction of managerial job performance. *Journal of Organizational Behavior*, 27, 443–461.
- Shantz, A., Alfes, K., Truss, C., & Soane, E. (2013). The role of employee engagement in the relationship between job design and task performance, citizenship and deviant behaviors. *The International Journal of Human Resource Management*, 24(13), 2608–2627.
- Tucker, M. L., & Sojka, J. Z. (2000). Training tomorrow's leaders: Enhancing the emotional intelligence of business graduates. *Education for Business*, 331-337.
- Van Rooy, D. L., & Viswesvaran, C. (2004). Emotional intelligence: A meta-analytic investigation of predictive validity and nomological net. *Journal of Vocational Behavior*, 65(1), 71–95.
- Vesely, A. K., Saklofske, D. H., & Nordstokke, D. W. (2014). EI training and pre-service teacher wellbeing. *Personality and Individual Differences*, 65, 81–85.
- Whittington, J. L., & Galpin, T. J. (2010). The engagement factor: building a high-commitment organization in a low-commitment world. *Journal of Business*

*Strategy*, 31(5), 14-24.

Wright, P., & Geroy, D. G. (2001). Changing the mindset: the training myth and the need for word-class performance. *International Journal of Human Resource Management*, 12(4), 586-596.

Yarahmadi, Y., Ebrahimibakht, H., Asadzadeh, H., & Ahmadian, H. (2018). The Effectiveness of academic buoyancy training program on students' academic performance, academic engagement, and academic buoyancy. *Journal of Research in teaching*, 6(2), 163\_182.

Zadeh, A. S., Abedi, A., Yousefi, Z., & Aghababaei, S. (2014). The effect of a successful intelligence training program on academic motivation and academic engagement female high school students. *International Journal of Psychological Studies*, 6(3), 118. <http://dx.doi.org/10.5539/ijps.v6n3p118>