Contents lists available at ScienceDirect

Heliyon

journal homepage: www.cell.com/heliyon

Review article

The role of emotional intelligence in EFL learners' academic literacy development

Lei Yang^{*}, Manfu Duan

Foreign Languages College, Inner Mongolia University, Hohhot, Inner Mongolia, China

ARTICLE INFO

Keywords: Emotional intelligence Academic literacy development EFL learners Positive psychology Academic contexts

ABSTRACT

The role of emotions and intelligence in English as a foreign language (EFL) learners' academic performance has been widely approved in the literature. However, the role of emotional intelligence (EI) in facilitating the development of academic literacy of EFL students has been rarely (if any) examined. Inspired by this gap, the present conceptual study made an effort to review the theoretical and empirical underpinnings of EFL students' EI and academic literacy development. In doing so, it explicated the definitions, conceptualizations, dimensions, theoretical approaches, and empirical studies related to both constructs. Drawing on prior research, it asserted that the enhancement of EFL students' EI can foster the development of their academic literacy as it is the case with several other academic domains. The study ends with a set of suggestions for future research and practical implications for English teachers, students, and trainers, who can further realize the criticality of EI in academic contexts.

1. Introduction

It is now widely approved that successful education is more than a mere presentation and practice of pieces of information and it is affected by numerous factors [1]. Given the prominence of education and educational contexts in shaping students' psychological well-being and social spheres, knowledge of emotions and social competencies has gained a surge of attention [2,3,4,5]. One's ability to understand his/her own emotions and decipher those of others was introduced by emotional intelligence (EI), but popularized in positive psychology (PP) [6,7]. EI can be defined as a mental capability for perceiving, understanding, using, and regulating one's own and other people's emotions [8]. El encompasses a person's self-awareness, self-regulation, social skills, motivation, and empathy [9]. The concept of EI boomed in education and psychology after the influential work of Goleman [10], which made the construct the kernel of EFL learners' well-being and emotion management [11,12]. An increasing bulk of scientific research has been carried out on the contribution of EI to various positive and negative learner emotions [13]. More precisely, research indicates that emotionally intelligent learners normally manifest greater happiness, self-esteem, optimism, and social support [14,15]. They have also been found to enjoy life satisfaction, flourishing, and well-being [16,17,18,19].

In academia, prior research findings demonstrated that developing EI of learners facilitates the ground for promoting interpersonal relations, flourishing, and psychological adjustment [20–23]. More importantly, high levels of EI have been substantiated to predict EFL learners' academic performance in different language skills and sub-skills [24,25,26]. This claim is warranted in the sense that emotionally intelligent students represent more capacity in handling emotions in educational contexts [12]. This ability also improves

Corresponding author. E-mail address: imuyanglei@163.com (L. Yang).

https://doi.org/10.1016/j.heliyon.2023.e13110

Received 4 December 2022; Received in revised form 27 December 2022; Accepted 18 January 2023

Available online 21 January 2023







^{2405-8440/© 2023} The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

classroom rapport and interactions between the teacher and his/her pupils [26]. Drawing on these studies and the mechanisms of EI, it can be contended that by attending to learners' emotions, emotional management, and self-directed learning [12,22,27], EI can be a momentous way to generate academic literacy among students, too. When it has the potential to influence various positive and negative emotions of the learners and their academic performance, why not claim that it has a notable trace in EFL students' academic literacy development?.

Academic literacy is a representation of higher-order thinking and learning that is essential for knowledge production, communication, and cognitive development [28,29]. Academic literacy research has gone through a paradigm shift from treating the concept as a discrete and transferrable set of skills to a sociocultural practice that mirrors the epistemology and identity of disciplines [30]. Academic literacy is a strong tool for generating and transforming knowledge and contextualizing learning [31]. With such a literacy, learners are now active agents of their own academic literacy development instead of passive knowledge-consumers [32,33]. In this view, academic literacy is a mediation provided for the socialization of the person into the academic community [31]. It is a multi-dimensional construct involving linguistic, cognitive, and sociocultural practices [34]. According to Moje et al. [35], academic literacy is a sociocultural construct embedded in meaning, value, and emotions. Although having a better communication and caring for emotions are two critical tenets of academic literacy development, to date, little has been written about the contribution of EI in developing EFL students' academic literacy or literacies. When an EFL student is emotionally intelligent, he/she can regulate self (his/her) and others' emotions and communications. Hence, his/her chance of acquiring literacy skills specialized for content learning is greater. Despite a burst of research on EI, the way it fosters academic literacy development of EFL students has been left under-researched. To shed light on this connection, the present conceptual review intended to present the theoretical and empirical underpinnings of EI and EFL learners' academic literacy development.

2. Background

2.1. The concept of emotional intelligence

Emotional intelligence (EI) is described as an individual's ability to understand, use, and manage emotions [36]. A person with high EI can realize his/her own emotions and those of others, utilize emotional information to direct thinking and behavior, differentiate between various feelings, and regulate emotions to adjust to environments [37]. Although the concept of EI was first proposed in 1964 [38], it became popular in 1995 after the influential book *Emotional Intelligence*, written by Daniel Goleman. He referred to EI as a wide range of skills and features that guide leadership performance [36]. It is an internal ability to understand and manage the self-sensitive actions and reactions of a person [39]. Bar-On et al. [40] considered EI as a set of non-cognitive skills that minimize contextual demands and pressures. It is asserted that emotionally intelligent individuals know themselves well and are able to sense others' emotions [41]. The popularity of EI extended from general and organizational psychology to PP given its role in the well-being and performance of individuals [6]. In this respect, it can be contended that EI is a fundamental aspect of character strengths in PP [42]. The promising thing regarding EI is that it is not a fixed property, but a dynamic one that can be taught and improved [43]. However, this modifiability largely depends on language teachers' and educators' technical and pedagogical knowledge in clarifying the main tenets of EI to students.

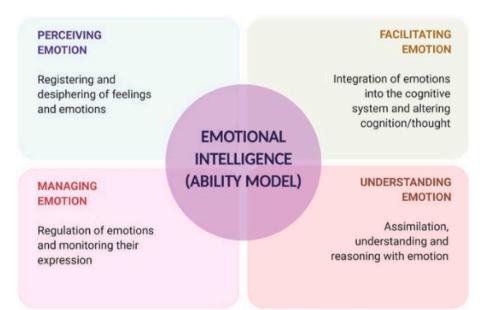


Fig. 1. The ability model of EI.

2.2. Models of emotional intelligence

Three main models have been widely used and cited in the literature regarding EI including the ability model, trait model, and mixed model [6,44]. Each of these models contributed to the development of different aspects of EI and its constituent constructs. The ability model regards emotions as valuable sources of information that assist the person to understand and navigate his/her social context [45]. The model posits that people differ in their capacity to process an emotional information and relate that emotional processing to a broader cognition [46]. This ability represents itself in certain adaptive behaviors. This model asserts that EI comprises four types of abilities, namely perceiving emotions, facilitating emotions, understanding emotions, and managing emotions as shown in Fig. 1 [47].

The trait model, on the other hand, considers EI as a combination of several personality traits related to emotions as illustrated in Fig. 2 [48]. According to Petrides and Furnham [49], EI is a personality trait related to one's ability to self-perceive emotions and should be measured through self-reported scales (e.g., the trait EI questionnaire or TEIQ). In this model, EI concerns behavioral dispositions and self-perceived skills, while the ability model highlights actual abilities that are resistant to measurement [50].

Finally, the mixed model, proposed by Goleman [36], considers EI as set of abilities and skills that direct one's leadership performance. It includes five core EI constructs, namely self-awareness, self-regulation, social skill, empathy, and motivation (Fig. 3).

In the mixed model, different emotional competencies have been underscored for each construct of EI that are neither innate nor fixed. Instead, they are obtainable and improvable abilities [51]. This model has been criticized by Mayer [52], who regarded it as a simple "pop psychology".

2.3. Emotional intelligence in academia: empirical evidence

Given the close connection among education, emotion, and intelligence, a growing body of research has been done on various aspects of students' performance and emotions in light of EI in the past decades. The results of such explorations pinpointed that EI has the potential to increase students' psychological adjustment [21], interpersonal relationships [20], academic performance [26], well-being [18], happiness, optimism, social support [14,15], emotional management and self-directed learning [12,27], and psychological comfort [53]. Additionally, EI has been found to predict relational engagement, cognitive outcomes, educational achievements, and work-related success [54]. Aside from these positive correlates, research indicates that high EI in students can reduce and curb the occurrence of negative emotions such as depression [15], stress [55], psychological pressure [56], and burnout [57]. EI can also lead to professional development [58] and high academic performance [12]. Therefore, it can be claimed that when students' are emotionally intelligent, they have more confidence, happiness, and sociability [56]. Consequently, their academic literacy can also be a fertile ground for planting the seeds of EI, as an under-research domain. If EI is a pivotal concept in various aspects of education, as mentioned, academic literacy development is by no means an exception and the enhancement of students' EI can promote their academic literacy, too.

2.4. Academic literacy: definitions and theoretical approaches

Academic literacy is defined as a range of literacy skills related to content learning, which is closely connected to one's higher-order thinking and advanced language skill development [59]. It includes several literacy practices that a student needs in order to be successful, including critical and analytical skills, linguistic and sociocultural knowledge, active membership in the academic community, and language fluency [60,61]. In sum, academic literacy is not limited to one's ability to read and write, instead, it covers a wide range of academic skills. Different theoretical approaches have been proposed in the literature regarding academic literacy. Academic literacy was previously seen as a discrete set of skills transferrable to other domains and contexts [31]. However, it is now perceived as a social practice that generates socialization and engagement in academic communities [62].

Another approach to academic literacy is "genre" approach, which considers it as one's gradual attainment of the shared cultural



Fig. 2. The trait model of EI.



Fig. 3. The mixed model of EI.

values and communicative practices in a given discipline [63]. In this sense, it functions as a frame of action that boosts academic community functioning [64]. The next approach behind academic literacy and its development is "the academic literacies" complementing the "genre" approach. This approach looks at EFL students' learning and performance from an epistemology and identity perspective rather than skill or socialization [61]. Acknowledging the role of social discourse in one's academic literacies, the academic literacies approach facilitates access, communication, and identification in the academic community, hence it reflects social justice and equality [30]. These approaches demonstrate that the construct of academic literacy is a multi-dimensional one involving cognitive, linguistic, and sociocultural practices [34]. These theoretical approaches are also known as the language, cognitive or disciplinary, and sociocultural approaches [65,66]. The first approach is chiefly text-driven and focuses on language structures and functions [65]. The second approach considers academic literacy as a higher-order thinking and learning, contextualized meaning, and academic socialization [67]. Finally, the sociocultural approach regards academic literacy as a social construct, which is full of values, meanings, and emotions and comprises power, structure, and ideology [68]. Drawing on these approaches, educators and scholars can make attempts to develop EFL students' academic literacy and conduct research on academic literacy development, as explained below.

2.5. Academic literacy development: conceptualizations and dimensions

The concept of academic literacy development can be defined as the process of obtaining an understanding of disciplinary writing practices and one's ability to interpret the links among texts, contexts, and social actions of different genres [69]. It is a multi-dimensional construct including three dimensions, namely *linguistic, cognitive*, and *socio-cultural* dimensions as depicted in Fig. 4 [70]. The first dimension considers academic literacy as a linguistic process since it depends not only on one's linguistic knowledge,

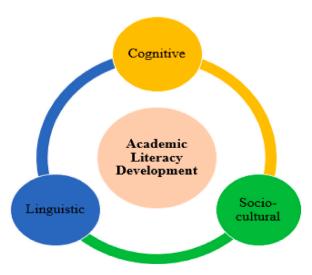


Fig. 4. The dimensions of academic literacy development [70].

but also on his/her knowledge of the textual organization, genre, and language conventions. The second dimension views literacy and its development as a cognitive process as it encompasses the connection between knowledge and textual forms in the person. The third dimension considers academic literacy as a social practice that develops by apprenticeship and social interactions [70]. In other words, it resides in social contexts and is interaction-based [71].

Given its multi-layered nature, academic literacy development requires meticulous research and practice in different contexts [72]. The following section summarizes some practical ways that may be beneficial to developing EFL students' academic literacy.

2.6. Practical ways to develop EFL students' academic literacy

Different methods and strategies can be used by educators to develop the academic literacy of EFL students. For instance, in a metaanalysis of 31 articles, Klarare et al.[73] proposed four critical ways to promote academic literacy including (1) the integration of learning activities into the regular curriculum, (2) the modification and supplementation of the course design with new instructional methods, (3) the establishment of collaborations amongst staff in academia, and (4) the provision of professional development courses on academic literacies. Other than these strategies, educators can make efforts to enhance EFL students' disciplinary knowledge, motivation, and engagement in academic tasks. Moreover, an integrated activity-based pedagogy may also contribute to academic literacy development [31]. The involvement of EFL students in real-life and authentic communication encounters can also increase their disciplinary knowledge and performance. Furthermore, formal instruction and pedagogical interventions are supportive of academic literacy development [74]. Finally, focusing on EFL students' emotions and emotion-regulation strategies as pinpointed in PP can play a prominent role in academic literacy development. By tapping into EFL students' positive emotions and powers, rather than lingering on negative feelings, teachers can pave the way for literacy development. A possible practice in this regard can be highlighting interpersonal communication skills in the class, which is in line with the dialogic, social, and interaction-based nature of academic literacy.

3. Final remarks

In this study, it was asserted that enhancing EFL students' EI can facilitate their academic literacy development. When they are emotionally intelligent, they can understand their own and others' emotions and have a better interaction in the class. Moreover, as bulks of scientific findings revealed, many aspects of education, especially positive emotions and academic performance of learners can boost in light of EI [73]. Hence, the contribution of EI can extend to academic literacy domains, as well. This is supported by the theoretical underpinnings of both constructs. As stated in the background, both EI and academic literacy are dynamic and sensitive to one's emotions [43]. They are both contextual as claimed by the trait/mixed model of EI and the sociocultural approach to academic literacy. In other words, academic literacy development does not happen in a vacuum, but in social contexts laden with values, cultural norms, emotions, and ideologies [75]. As a result, EI that aims to improve one's self-awareness, empathy, and interaction can play a role in learners' academic literacy development. It is illogical to contend that academic literacy development only depends on the pedagogical and technical knowledge of the teacher and ignore the role of students' emotions and intelligences. Based on these propositions, this conceptual review may add to the current body of knowledge concerning the role of EI in academic literacy development models. It highlights the role of EI in academic literacy and calls for the integration of EI in academic literacy development interventions/programs. Education and learning are social entities, so a high level of EI among students can facilitate their academic literacy development in the classroom community. Furthermore, English teachers can also benefit from this study in that they can understand the role of EI in their pedagogy, especially those intended to raise EFL students' academic literacy. They can employ strategies that reflect the tenets of EI and promote their instructional efficacy. Moreover, EFL students can use this article to get fruitful ideas regarding the impact of EI on their education, in general, and academic literacy development, in particular. By understanding their own as well as others' emotions, they can have better classroom interactions that pave the way for their academic success and literacy. Teacher educators may find this study useful by offering training courses to teachers with various experiences in which they cultivate teachers' knowledge and practice of EI in their career alongside pedagogical issues. Finally, this study can be promising for educational researchers in that they can run further research considering the impact of EI on EFL students' academic literacy. The present study was a theoretical investigation and can be complemented by future empirical studies. Many existing studies have overlooked the role of cultural factors in the interplay between EI and academic literacy development of EFL students. Hence, future researchers are suggested to run cross-cultural investigations in this domain. Moreover, mixed-methods research (MMR) can be carried out to better capture the interaction between EI and academic literacy since the literature on these two constructs has mostly employed either one-shot, correlational designs or meta-analyses to clarify their definitions and models further. Lastly, the contribution of EI to the development of constructs proposed by PP (e.g., resilience, hope, enjoyment, immunity, interpersonal communication etc.) is also an interesting line of research [76].

Author contribution statement

All authors listed have significantly contributed to the development and the writing of this article.

Funding statement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Data availability statement

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

Declaration of interest's statement

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

References

- H.T. Nguyen, W. Warren, H. Fehring, Factors affecting English language teaching and learning in higher education, Engl. Lang. Teach. 7 (8) (2014) 94–105.
 Z. Alford, Positive education: developing skills for school life and beyond, in: M. White, G. Slemp, S. Murray (Eds.), Future Directions in Well-Being, Springer, 2017. pp. 7–11.
- [3] M.T. Chamizo-Nieto, C. Arrivillaga, L. Rey, N. Extremera, The role of emotional intelligence, the teacher-student relationship, and flourishing on academic performance in adolescents: a moderated mediation study, Front. Psychol. 12 (2021), https://doi.org/10.3389/fpsyg.2021.695067.
- [4] A. Derakhshan, Z. Eslami, N. Ghandhari, Investigating the interplay of emotional intelligence and interlanguage pragmatic competence in Iranian lowerintermediate EFL learners, Issues Lang. Teach. 10 (1) (2021) 37–66, https://doi.org/10.22054/ilt.2020.54334.527.
- [5] M.E.P. Seligman, Flourish: a visionary new understanding of happiness and well-being, Atria (2011).
- [6] V. Allen, C. MacCann, G. Matthews, R.D. Roberts, Emotional intelligence in education: from pop to emerging science, in: R. Pekrun, L. Linnenbrink-Garcia (Eds.), International Handbook of Emotions in Educationeds, Routledge, 2014, pp. 162–182.
- [7] Y.L. Wang, A. Derakhshan, L.J. Zhang, Researching and practicing positive psychology in second/foreign language learning and teaching: the past, current status and future directions, Front. Psychol. 12 (2021) 1–10, https://doi.org/10.3389/fpsyg.2021.731721.
- [8] J.D. Mayer, D.R. Caruso, P. Salovey, The ability model of emotional intelligence: principles and updates, Emotion Rev. 8 (4) (2016) 290–300, https://doi.org/ 10.1177/1754073916639667.
- [9] S.U. Jan, M.A. Anwar, Emotional intelligence, library use and academic achievement of university students, J. Austr. Lib. Inf. Assoc. 68 (1) (2019) 38–55, https://doi.org/10.1080/24750158.2019.1572482.
- [10] D.P. Goleman, Emotional Intelligence: Why it Can Matter More than IQ, Bantam Books, 1995.
- [11] L. Cheng, J. Xu, Trait emotional intelligence and classroom emotions: a positive psychology investigation and intervention among Chinese EFL learners, Front. Psychol. 10 (2019) 2453, https://doi.org/10.3389/fpsyg.2019.02453.
- [12] C. MacCann, Y. Jiang, L.E. Brown, K.S. Double, M. Bucich, A. Minbashian, Emotional intelligence predicts academic performance: a meta-analysis, Psychol. Bull. 146 (2020) 150–186, https://doi.org/10.1037/bul0000219.
- [13] P. Resnik, S. Moskowitz, A. Panicacci, Language learning in crisis mode: the connection between LX grit, trait emotional intelligence and learner emotions, J. Psychol. Lang. Learn. 3 (2) (2021) 99–117.
- [14] E. Lopez-Zafra, M.M. Ramos-Álvarez, K. El Ghoudani, O. Luque-Reca, J.M. Augusto-Landa, B. Zarhbouch, S. Alaoui, D. Cortés-Denia, M. Pulido-Martos, Social support and emotional intelligence as protective resources for well-being in Moroccan adolescents, Front. Psychol. 10 (2019) 1529, https://doi.org/10.3389/ fpsyg.2019.01529.
- [15] C. Tejada-Gallardo, A. Blasco-Belled, C. Torrelles-Nadal, C. Alsinet, How does emotional intelligence predict happiness, optimism, and pessimism in adolescence? Investigating the relationship from the bi-factor model, Curr. Psychol. (2020), https://doi.org/10.1007/s12144-020-01061-z.
- [16] A. Callea, D. De Rosa, G. Ferri, F. Lipari, M. Costanzi, Are more intelligent people happier? Emotional intelligence as mediator between need for relatedness, happiness and flourishing, Sustainability 11 (2019) 1022, https://doi.org/10.3390/su11041022.
- [17] L. Habeb Al-Obaydi, M. Pikhart, A. Derakhshan, A qualitative exploration of emotional intelligence in English as foreign language learning and teaching: evidence from Iraq and the Czech Republic, Appl. Res. Engl. 11 (2) (2022) 93–124, https://doi.org/10.22108/are.2022.132551.1850.
- [18] C. Salavera, P. Usán, P. Teruel, J.L. Antoñanzas, Eudaimonic well-being in adolescents: the role of trait emotional intelligence and personality, Sustainability 12 (2020) 2742, https://doi.org/10.3390/su12072742.
- [19] N. Sánchez-Álvarez, N. Extremera, P. Fernández-Berrocal, The relation between emotional intelligence and subjective well-being: a meta-analytic investigation, J. Posit. Psychol. 11 (2016) 276–285, https://doi.org/10.1080/17439760.2015.1058968.
- [20] A.M. Martínez-Martínez, R. López-Liria, J.M. Aguilar-Parra, R. Trigueros, M.J. Morales-Gázquez, P. Rocamora-Pérez, Relationship between emotional intelligence, cyber-victimization, and academic performance in secondary school students, Int. J. Environ. Res. Publ. Health 17 (21) (2020) 7717, https://doi. org/10.3390/ijerph17217717.
- [21] L. Rey, S. Mérida-López, N. Sánchez-Álvarez, N. Extremera, When and how do emotional intelligence and flourishing protect against suicide risk in adolescent bullying victims? Int. J. Environ. Res. Publ. Health 16 (12) (2019) 2114, https://doi.org/10.3390/ijerph16122114.
- [22] R. Trigueros, J.M. Aguilar-Parra, A.J. Cangas, R. Bermejo, C. Ferrandiz, R. López-Liria, Influence of emotional intelligence, motivation and resilience on academic performance and the adoption of healthy lifestyle habits among adolescents, Int. J. Environ. Res. Publ. Health 16 (16) (2019) 2810, https://doi.org/ 10.3390/ijerph16162810.
- [23] F. Xie, A. Derakhshan, A conceptual review of positive teacher interpersonal communication behaviors in the instructional context, Front. Psychol. 12 (2021) 1–10, https://doi.org/10.3389/fpsyg.2021.708490.
- [24] S. Bata, C. Castro, English as a foreign language students' emotional intelligence management when taking speaking exams, Profile Issues Teach. Prof. Dev. 23 (2) (2021) 245–261, https://doi.org/10.15446/profile.v23n2.88378.
- [25] K. Jalilzadeh, P. Yeganehpour, The relationship between intermediate EFL students' oral performance, communicative willingness, as well as emotional intelligence, Read. Matrix: Int. Online J. 21 (2) (2021) 165–179.
- [26] N. Sánchez-Álvarez, M.P. Berrios-Martos, N. Extremera, A meta-analysis of the relationship between emotional intelligence and academic performance in secondary education: a multi-stream comparison, Front. Psychol. 11 (2020) 1517, https://doi.org/10.3389/fpsyg.2020.01517.
- [27] K.C.H. Zhoc, T.S.H. Chung, R.B. King, Emotional intelligence (EI) and self-directed learning: examining their relation and contribution to better student learning outcomes in higher education, Br. Educ. Res. J. 44 (6) (2018) 982–1004, https://doi.org/10.1002/berj.3472.
- [28] J. Flowerdew, Introduction: Approaches to the Analysis of Academic Discourse in English, Routledge, 2013.
- [29] E.B. Moje, Doing and teaching adolescent literacy with adolescent learners: a social and cultural enterprise, Harv. Educ. Rev. 85 (2) (2015) 254–278. https:// doi/10.17763/0017-8055.85.2.254.
- [30] J.P. Gee, Literacy and Education, Routledge, 2015.
- [31] D. Li, A review of academic literacy research development: from 2002 to 2019, Asian Pac. J. Second Foreign Lang. Educ. 7 (1) (2022) 1–22, https://doi.org/ 10.1186/s40862-022-00130-z.
- [32] M. Gebhard, Fast capitalism, school reform, and second language literacy practices, Mod. Lang. J. 88 (2) (2004) 245–265, https://doi.org/10.1111/j.0026-7902.2004.00228.x.
- [33] U. Wingate, Academic literacy across the curriculum: towards a collaborative instructional approach, Lang. Teach. 51 (3) (2018) 349–364, https://doi.org/ 10.1017/S0261444816000264.

- [34] A. Cumming, Multiple dimensions of academic language and literacy development, Lang. Learn. 63 (1) (2013) 130–152, https://doi.org/10.1111/j.1467-9922.2012.00741.x.
- [35] E.B. Moje, M. Overby, N. Tysvaer, K. Morris, The complex world of adolescent literacy: myths, motivations, and mysteries, Harv. Educ. Rev. 78 (1) (2008) 107–154.
- [36] D. Goleman, What makes a leader? Harv. Bus. Rev. 76 (1998) 92-105.
- [37] A. Coleman, A Dictionary of Psychology, Oxford University Press, 2008.
- [38] M. Beldoch, J.R. Davitz, The Communication of Emotional Maeaning, Greenwood Press, 1976.
- [39] F. Alam, Q. Yang, M.Y. Bhutto, N. Akhtar, The influence of E-learning and emotional intelligence on psychological intentions: study of stranded Pakistani students, Front. Psychol. 3557 (2021), https://doi.org/10.3389/fpsyg.2021.715700.
- [40] R. Bar-On, The bar-on model of emotional-social intelligence (ESI), Psicothema 18 (Suppl) (2006) 13–25.
- [41] O. Serrat, Understanding and developing emotional intelligence, in: O. Serrat (Ed.), Knowledge Solutions, Springer, 2017, pp. 329–339.
- [42] P. Salovey, J.D. Mayer, D. Caruso, The positive psychology of emotional intelligence, in: C.R. Synder, S.J. Lopez (Eds.), Handbook of Positive Psychology, Oxford University Press, 2002, pp. 159–171.
- [43] G. Sadri, Emotional intelligence: can it be taught, Inquiry 15 (3) (2011) 197–215.
- [44] A. Martins, N. Ramalho, E. Morin, A comprehensive meta-analysis of the relationship between emotional intelligence and health, J. Personal. Indiv. Differ. 49 (6) (2010) 554–564, https://doi.org/10.1016/j.paid.2010.05.029.
- [45] P. Salovey, D. Grewal, The science of emotional intelligence, Curr. Dir. Psychol. Sci. 14 (6) (2005) 6, https://doi.org/10.1111/j.0963-7214.2005.00381.x. S2CID2143869.
- [46] J.D. Mayer, D.R. Caruso, P. Salovey, Emotional intelligence meets traditional standards for an intelligence, Intelligence 27 (4) (1999) 267–298.
- [47] J.D. Mayer, P. Salovey, What is emotional intelligence? in: P. Salovey, D. Sluyter (Eds.), Emotional Development and Emotional Intelligence: Educational Implications Basic Books, 1997, pp. 3–31.
- [48] K.V. Petrides, S. Mavroveli, Theory and applications of trait emotional intelligence, Psychol.: J. Hellenic Psychol. Soc. 23 (1) (2018) 24–36, https://doi.org/ 10.12681/psy_hps.23016.
- [49] K.V. Petrides, A. Furnham, Trait emotional intelligence: behavioral validation in two studies of emotion recognition and reactivity to mood induction, Eur. J. Pers. 17 (1) (2003) 39–57, https://doi.org/10.1002/per.466.
- [50] K.V. Petrides, A. Furnham, Trait emotional intelligence: psychometric investigation with reference to established trait taxonomies, Eur. J. Pers. 15 (6) (2001) 425–448, https://doi.org/10.1002/per.416.
- [51] R.E. Boyatzis, D. Goleman, K. Rhee, Clustering competence in emotional intelligence: insights from the emotional competence inventory (ECI), in: R. Bar-On, J. Parker (Eds.), Handbook of Emotional Intelligence, Jossey-Bass, 2000, pp. 343–362.
- [52] R.E. Mayer, Incorporating individual differences into the science of learning: commentary on Sternberg et al. (2008), Perspect. Psychol. Sci. 3 (6) (2008) 507–508.
- [53] A. Carmeli, M. Yitzhak-Halevy, J. Weisberg, The relationship between emotional intelligence and psychological wellbeing, J. Manag. Psychol. 24 (2009) 66–78, https://doi.org/10.1108/02683940910922546.
- [54] M.G. Cherry, I. Fletcher, D. Berridge, H. O'Sullivan, Do doctors' attachment styles and emotional intelligence influence patients' emotional expressions in primary care consultations? An exploratory study using multilevel analysis, Patient Educ. Counsel. 101 (4) (2018) 659–664, https://doi.org/10.1016/j. pec.2017.10.017.
- [55] M. Mikolajczak, C. Menil, O. Luminet, Explaining the protective effect of trait emotional intelligence regarding occupational stress: exploration of emotional labor processes, J. Res. Pers. 41 (2007) 1107–1117, https://doi.org/10.1016/j.jrp.2007.01.003.
- [56] C. Stevens, E. Schneider, P. Bederman-Miller, K. Arcangelo, Exploring the relationship between emotional intelligence and academic stress among students at a small, private college, Contemp. Issues Educ. Res. 12 (4) (2019) 93–102, https://doi.org/10.19030/cier.v12i4.10322.
- [57] A.M. Cazan, L.E. Năstasă, Emotional intelligence, satisfaction with life and burnout among University students, Procedia 180 (2015) 1574–1578, https://doi. org/10.1016/j.sbspro.2015.02.309.
- [58] L.E. Năstasă, Developing Emotional Intelligence of Students in Psychology through the Experiential Group, Bucharest University Press, 2010.
- [59] T. Shanahan, C. Shanahan, Teaching disciplinary literacy to adolescents: rethinking content-area literacy, Harv. Educ. Rev. 78 (1) (2008) 40–59, https://doi. org/10.17763/haer.78.1.v62444321p602101.
- [60] C. Kiili, M. Mäkinen, J. Coiro, Rethinking academic literacies: designing multifaceted academic literacy experiences for preservice teachers, J. Adolesc. Adult Literacy 57 (3) (2013) 223–232.
- [61] M.R. Lea, B.V. Street, Student writing in higher education: an academic literacies approach, Stud. High Educ. 23 (2) (1998) 157–172.
- [62] P.A. Duf, Language socialization into academic discourse communities, Annu. Rev. Appl. Ling. 30 (2010) 169–192, https://doi.org/10.1017/ S0267190510000048.
- [63] R. Fisher, Reconciling disciplinary literacy perspectives with genre-oriented Activity Theory: toward a fuller synthesis of traditions, Read. Res. Q. 54 (2) (2019) 237–251, https://doi.org/10.1002/rrq.233.
- [64] E. Wenger, Communities of Practice: Learning, Meaning, and Identity, Cambridge University Press, 1998.
- [65] H. Allison, L. Harklau, Teaching academic literacies in secondary school, in: C. Li, P. Edwards (Eds.), Best Practices in ELL Instruction, The Guilford Press, 2010, pp. 835–851.
- [66] Z. Fang, Approaches to developing content area literacies: a synthesis and a critique, J. Adolesc. Adult Literacy 56 (2) (2012) 103–108, https://doi.org/ 10.1002/JAAL.00110.
- [67] S. Granville, L. Dison, Thinking about thinking: integrating self-refection into an academic literacy course, J. Engl. Acad. Purp. 4 (2) (2005) 99–118.
- [68] M.R. Lea, B.V. Street, The "academic literacies" model: theory and applications, Theor. Pract. 45 (4) (2006) 368–377.
- [69] C. Bazerman, P. Prior, What Writing Does and How it Does it: an Introduction to Analyzing Texts and Textual Practices, Routledge, 2004.
- [70] R. Kern, Literacy and Language Teaching, Oxford University Press, 2000.
- [71] D. Barton, Literacy: an Introduction to Ecology of Written Language, Blackwell Publishing, 2007.
- [72] G. Wells, Apprenticeship in literacy, Interchange 18 (1) (1987) 109–123.
- [73] A. Klarare, I.B. Rydeman, Å. Kneck, E. Bos Sparén, E. Winnberg, B. Bisholt, Methods and strategies to promote academic literacies in health professions: a scoping review, BMC Med. Educ. 22 (1) (2022) 1–10.
- [74] U. Wingate, C. Tribble, The best of both worlds? Towards an English for academic purposes/academic literacies writing pedagogy, Stud. High Educ. 37 (4) (2012) 481–495, https://doi.org/10.1080/03075079.2010.525630.
- [75] K.V. Petrides, M. Mikolajczak, S. Mavroveli, M.J. Sanchez-Ruiz, A. Furnham, J.C. Pérez-González, Developments in trait emotional intelligence research, Emotion Rev. 8 (2016) 335–341, https://doi.org/10.1177/1754073916650493.
- [76] R. Pekrun, L. Linnenbrink-Garcia, Emotional intelligence in education: from pop to emerging science, in: R. Pekrun, L. Linnenbrink-Garcia (Eds.), International Handbook of Emotions in Education, Routledge, 2014, pp. 172–192.