

The Significance of Teacher Empathy in Fostering Students' Engagement in English Language Classes

Neda Kianinezhad

*English Department, Mashhad Branch,
Islamic Azad University, Mashhad, Iran*

Abstract

This research paper critically reviews the literature on the correlation between teacher empathy and learner engagement in English as a Foreign Language (EFL) learning environments. Multiple studies consistently provide extensive evidence supporting a positive and significant relationship between teacher empathy and learner engagement. The impact of teacher-learner rapport on enhancing learner engagement has been consistently demonstrated. Empirical studies highlight the crucial role of teacher empathy in fostering learner self-confidence within educational settings. The literature review emphasizes the importance of creating a positive classroom atmosphere through empathy, sympathy, and kindness, which contribute to increased learner motivation and active participation. Moreover, research indicates that teacher empathy effectively reduces stress levels, positively influencing learner engagement. However, the impact of teacher empathy on student engagement in online learning contexts has been relatively neglected in the research literature. Further investigations are needed to explore the complex connections between positive psychological constructs and teachers' emotions in online learning environments. In conclusion, this research paper provides valuable pedagogical insights for learners and teachers in academic settings. It underscores the significance of teacher empathy in fostering learner engagement and highlights the need for future research to delve deeper into the relationship between positive psychological factors and teachers' emotions.

Keywords: *Teacher empathy; Teacher-student rapport; Positive environment; Learner engagement*

Introduction

In recent years, there has been a growing interest in exploring the role of teacher empathy in fostering student engagement in English language classes. Empathy, regarded as a crucial element of emotional intelligence, has consistently shown a positive and significant association with learner engagement in the existing literature. Research studies have provided evidence that teacher empathy contributes to learner self-confidence, motivation, and reduced stress levels, ultimately enhancing learners' level of engagement (Aldrup et al., 2022). The English language classroom has been recognized as a dynamic platform for cultivating empathy, prompting universities to increasingly focus on developing empathy among students through customized educational content. However, the impact of teacher empathy on student engagement in online learning environments has received limited attention in the research literature (Wang et al., 2022). Therefore, this paper aims to examine the relationship between teacher empathy and learner engagement in English language classes and provide pedagogical implications for fostering engagement among learners and teachers in academic contexts.

Emotions play a pivotal role in shaping the behaviors of instructors in educational settings. Extensive research has explored the realm of teacher emotions and their influence on learners' academic achievement and engagement (Xie & Derakhshan, 2021). For language teachers, it is crucial not only to possess language proficiency, effective instructional design strategies, assessment skills, and the ability to utilize teaching aids but also to foster a positive relationship with learners by acknowledging their positive and negative emotions (Liu, 2016). When learners perceive

a lack of connection with their instructors, their perception of educational effectiveness tends to diminish (Moore & Kearsley, 2004). Conversely, learners are more likely to actively engage in the classroom when they have a positive and close rapport with their teacher (Richardson et al., 2012). Therefore, establishing a strong teacher-learner rapport, particularly through teacher empathy, can significantly enhance learner engagement within the classroom context. Moreover, engagement, recognized as a fundamental construct in positive psychology, has garnered considerable attention from researchers striving to improve learning outcomes and cultivate supportive learning environments (Wang et al., 2021).

Seligman (2011) introduced the PERMA framework, a fundamental concept in positive psychology. It comprises five dimensions: positive emotion (P), engagement (E), relationships (R), meaning (M), and accomplishment (A). Positive psychology aims to nurture these dimensions in individuals. However, previous research has predominantly concentrated on positive emotional constructs to enhance language processing among learners (Fang and Tang, 2021). This study seeks to investigate the existing literature on the impact of teacher empathy on learner engagement. The significance of this research lies in its contribution to increasing teachers' awareness of both their positive and negative behaviors and how they influence learners' willingness to actively participate in educational settings

Review of the Literature

The Concept of Empathy

Empathy, as defined by Eisenberg et al. (2014), refers to the ability of individuals to understand and share both

negative and positive emotions experienced by others. Weisz and Cikara (2021) further emphasize that empathy involves comprehending individuals' opinions, emotional states, and attending to their well-being. It is considered a significant component of interpersonal behaviors, as highlighted by Amicucci et al. (2021). According to Baron-Cohen and Wheelwright (2004), individuals who are empathic demonstrate effort and persistence in discerning others' thoughts and responding to them. Empathy, as an inner feeling, enables individuals to predict the behaviors of others. Cialdini et al. (1997) assert that empathy encompasses specific abilities rather than mere attitudes. Mercer and Reynolds (2002) conceptualize empathy as a multidimensional construct comprising ethical, cognitive, emotional, and interactional components, which has been theorized across various fields.

Empathy can be categorized into two primary types: cognitive and affective, as described by Stojiljkovic et al. (2012). Cognitive empathy pertains to understanding the emotional experiences of others, while affective empathy involves sharing their emotional experiences. Although cognitive and affective empathy are distinct, research has demonstrated a notable correlation between them. Tusche et al. (2016) observe that individuals with autism often exhibit deficiencies in cognitive empathy, while those with psychopathy display deficits in affective empathy.

Empathy is widely acknowledged as a valuable social-emotional skill for interpersonal interactions, as highlighted by Eisenberg et al. (2014). Moreover, research suggests that empathy can serve as a predictor of individuals' psychological well-being within educational settings (Vinayak and Judge, 2018; Wang and Guan,

2020). The ability to consider others' perspectives, a central component of empathy, is associated with a reduction in egocentric self-focus and contributes to enhanced well-being (Gazzaniga, 2008). Furthermore, teachers' empathy has been found to reduce their stress levels and promote their psychological well-being (Rajabi and Ghezelsefloo, 2020). The positive correlation between self-compassion and psychological well-being has also been supported by Wang et al. (2022).

In a nutshell, empathy is a valuable skill that encompasses the comprehension and sharing of others' emotions and perspectives. It comprises both cognitive and affective components, which are vital for successful interpersonal interactions. Empathy has a significant impact on individuals' psychological well-being, particularly within the educational context, where teachers who demonstrate empathy experience reduced stress and improved psychological well-being. Additionally, cultivating self-compassion has been demonstrated to enhance overall well-being. Recognizing the role of empathy can inform the development of effective interventions aimed at promoting positive social and emotional outcomes. Prioritizing empathy-building practices and fostering self-compassion can enhance well-being and facilitate positive social interactions.

Teacher Empathy

Empathy holds significant value in diverse professional domains, including education, medicine, and social work, due to its essential role in interpersonal interactions (Stojiljkovic´ et al., 2012). Both the cognitive and affective dimensions of empathy are crucial for occupations that

involve providing emotional support to individuals within the community. While extensive research has examined empathy in the context of psychoanalysts and physicians, the investigation of teacher empathy has received comparatively less attention (Hen, 2010). Nevertheless, studies have underscored the significance of empathy in the development of both teachers and learners, encompassing ethical, communal, and educational aspects (Arghode et al., 2013).

Rogers (1995) emphasized the profound impact of teacher empathy on the learning process, stating that when teachers possess the ability to understand students' reactions from their perspective and demonstrate sensitive awareness of the educational dynamics, it significantly enhances the likelihood of effective learning. Tettegah and Anderson (2007) defined teacher empathy as the capacity to engage with learners' concerns, comprehend their viewpoints, and perceive situations through their eyes. Furthermore, Cooper (2010) revealed that teachers can foster an educational environment by addressing learners' needs and responding to their apprehensions. In a study investigating empathic teaching, Ikiz (2009) found that empathic teachers effectively manage learner aggression, enhance learners' psychological well-being, and mitigate violent behaviors. Serbati et al. (2020), focusing on exceptional instructors, emphasized the significance of teacher empathy, teacher motivation, and learner cooperation as valuable factors in teaching exceptional learners.

Teacher empathy is influenced by various factors, including gender (Pidbutska et al., 2021) and attitude (Parchomiuk, 2019). Klassen et al. (2017) identified a

positive correlation between personality traits, such as teacher agreeableness, and teacher empathy, thereby enhancing effective teaching practices. In examining the relationship between teachers' cognitive empathy, mindsets, and job burnout, Wink et al. (2021) discovered that teachers with higher levels of cognitive empathy tend to hold positive mindsets regarding learners' performance and effectively manage challenging behaviors. Additionally, these teachers demonstrate a greater propensity for utilizing problem-solving strategies and experience lower levels of job burnout in educational settings. Another study conducted by Hassanpour Souderjani et al. (2021) emphasized the importance of life satisfaction in fostering teacher empathy, suggesting that creating conducive conditions can contribute to its enhancement. Furthermore, Zhu et al. (2019) found a positive association between teachers' professional identity and teacher empathy.

The study conducted by Salem and Tabatabaei (2015) provided empirical evidence supporting a significant correlation between the emotional intelligence of English as a Foreign Language (EFL) teachers and their ability to demonstrate empathy in the classroom. Additionally, Csaszar et al. (2018) identified teacher compassion as a mediating factor in the relationship between teacher empathy and apprehension.

Cooper (2004) asserted that teachers who possess high levels of empathy play a crucial role in fostering learners' self-efficacy and motivation. Supporting this notion, Hen (2010) conducted a study that revealed instructors with a strong sense of self-efficacy exhibit significantly higher levels of empathy and optimism towards students with

special needs in mainstream classrooms. Similarly, Lam et al. (2011) found a notable positive correlation between empathy and the establishment of a positive teacher-learner rapport among science teachers in educational settings. Gandhi et al. (2021) argued that teacher beliefs hold significant influence in shaping teacher empathy and motivation. Moreover, Weisz et al. (2021) observed that teachers who believe in the malleability of empathy exhibit fewer offensive behaviors and demonstrate higher levels of empathy. Goroshit and Hen (2016) conducted a study that demonstrated a significant relationship between instructors' self-efficacy, emotional self-efficacy, and teacher empathy. They further revealed that teacher self-belief acts as a mediating variable in the association between teacher self-efficacy and teacher empathy.

In summary, cultivating empathy in teachers is essential for creating positive learning environments and promoting student well-being. Understanding the factors that influence teacher empathy can help inform strategies and interventions aimed at enhancing empathy among educators, ultimately benefiting both teachers and learners in educational settings. Further research is warranted to explore additional variables and investigate the long-term effects of teacher empathy on student outcomes.

Learner Engagement

Lamborn et al. (1992) define engagement as the psychological effort and investment exerted by learners to acquire, understand, or master the skills, crafts, or knowledge promoted by the coursework. In contrast, Skinner et al. (2009) characterize learner engagement as the quality and quantity of students' participation and

connection with the educational endeavor, encompassing activities, values, individuals, aims, and the learning environment itself. Lei et al. (2018) emphasize that learner engagement reflects the efficient use of time by learners in engaging in educational tasks and activities. Similarly, Chang et al. (2016) portray learner engagement as the extent of involvement and energy devoted by learners to educational projects in face-to-face or digital learning settings. Within the realm of language education, investigating engagement provides valuable insights into learners' thoughts, beliefs, and emotions within instructional contexts (Oga-Baldwin, 2019).

Hiver et al. (2021) contend that learner engagement is a multifaceted construct that encompasses emotional, cognitive, and behavioral dimensions. They argue that learners can engage not only physically but also cognitively by actively completing language learning assignments, and these dimensions interact to shape learners' attitudes and optimism toward the learning process. Dincer et al. (2019) assert that behavioral engagement involves activities such as task completion, classroom participation, and interactive exchanges with teachers through questioning and answering. Mercer (2019) underscores the distinction between the behavioral dimension of engagement and motivation. Emotional engagement, as defined by Dincer et al. (2019), pertains to learners' emotional reactions within the classroom context. Furthermore, cognitive engagement refers to learners' inclination to employ complex learning strategies rather than relying on simple ones (Dincer et al., 2019).

Reschly et al. (2020) put forth the argument that there exists a significant correlation between behavioral

engagement and both cognitive and affective engagement. Building upon this concept, Reeve (2013) expanded the framework of engagement by introducing agentic engagement as a fourth dimension of this construct. Reeve and Tseng (2011) provided a definition of agentic engagement as an active and constructive contribution made by students within the instructional process they receive. Reeve (2013) further characterized agentic engagement as a proactive, intentional, collaborative, and constructive pathway that students initiate to enhance their academic achievements. In a study conducted within Chinese educational contexts, Guo (2021) discovered that Chinese English as a Foreign Language (EFL) learners demonstrate cognitive, behavioral, and emotional engagement in their learning environments. However, the study revealed a lack of agentic engagement displayed by these learners within the educational settings.

Numerous studies have investigated the connection between engagement and various positive psychological factors, such as grit, well-being, foreign language enjoyment, hope, and motivation. Yang (2021) conducted a study focusing on English as a Foreign Language (EFL) learners, revealing a significant correlation between grit, well-being, and engagement. The findings suggested that EFL learners with high levels of grit and engagement also tend to experience higher levels of well-being. Robinson (2015) explored the relationship between engagement and grit in nursing students, demonstrating a notable association between course engagement and students' grit. Additionally, the study identified a significant correlation between persistence of effort and learners' behavioral engagement.

O'Neal et al. (2019) compared the grit of elementary learners with their emotional engagement, operationalizing emotional engagement as learning enjoyment. Their study proposed that motivation plays a significant role as a mediator in the relationship between grit and emotional engagement. Derakhshan (2021) argued that learners with high levels of grit in language learning often evaluate their own activities, leading to increased academic engagement and enjoyment. Gallagher et al. (2017) emphasized the significance of hope in enhancing learners' academic success and highlighted a positive correlation between hope and engagement in English courses. Reilly and Sánchez Rosas (2019) suggested a significant correlation among language learning enjoyment, hope, and engagement, with higher proficiency learners displaying greater levels of engagement, enjoyment, and hope, while lower proficiency learners exhibited more apprehension and hopelessness.

Eccles (2016) proposed that academic engagement has a positive and significant relationship with academic achievement and resilience. Oga-Baldwin and Nakata (2017) discovered a strong correlation between engagement and intrinsic motivation, while observing a negative correlation between engagement and extrinsic motivation. Their study also indicated that male learners tend to be less engaged in the classroom and have lower intrinsic motivation. Ryan and Deci (2017) found that engagement enhances a self-determined motivational orientation. Peng (2021) regarded learner motivation as a prerequisite for engagement and academic achievement. Lin (2012) emphasized the influence of learners' cultural and educational backgrounds, as well as teachers' attitudes

toward learners, on their academic engagement and motivation.

Ghelichli et al. (2022) conducted a study that revealed significant connections between language learning motivation and each aspect of learner engagement. Specifically, they found the strongest correlation between cognitive engagement and language learning motivation. In a separate investigation exploring the relationship between negative emotions and learner engagement, Zhao et al. (2021) discovered a noteworthy correlation between learner academic engagement and mindset. The study also highlighted the mediating role of stress, a negative emotion, in the association between learning engagement and growth mindset.

The instructional methodologies employed by teachers also play a crucial role in fostering academic engagement. Guilloteaux (2016) argued that learners' engagement is influenced by various factors, including their background level, task type, task difficulty, instructors' methodology, motivation, and teaching style. Hung (2015) contended that outdated teaching approaches such as memorization and rote learning significantly contribute to learners' disengagement, suggesting the adoption of flipped instruction as a viable solution. The teaching style proposed by Grasha (1996) and the findings of Shaaria et al.'s (2014) study both indicated a positive correlation between teaching styles and learners' academic engagement. Furthermore, Ghaznavi et al. (2021) examined the role of teaching multiple intelligences in promoting learner engagement and found that this approach enhances learners' multiple intelligence, subsequently fostering their academic engagement.

Learner engagement has gained recognition as a crucial factor in addressing various educational challenges, including low achievement, high dropout rates, and increased levels of learner fatigue and aggression (Boekaerts, 2016). Drawing upon self-determination theory, Chen et al. (2021) argued that the interaction between contextual characteristics and learners' psychological needs significantly influences learner engagement within an educational environment. Hospel and Galand (2016) emphasized the pivotal role of instructors in facilitating the fulfillment of learners' needs and promoting engagement through autonomy support. They suggested that the autonomy support provided by instructors positively impacts learners' engagement. Reeve and Shin (2019) similarly found that instructors' autonomy support serves as a significant predictor of learners' engagement. Additionally, Noels et al. (2019) confirmed a positive and significant correlation among engagement, motivation, autonomy, and competence.

The choice of teaching methodologies by educators has a profound impact on academic engagement. Guilloteaux (2016) highlighted various factors that influence learners' engagement, including their background level, task type, task difficulty, instructors' methodology, motivation, and teaching style. Hung (2015) argued that outdated approaches like memorization and rote learning are strong indicators of learners' disengagement and suggested the implementation of flipped instruction as a viable solution. Both Grasha (1996) and Shaaria et al. (2014) discovered a positive correlation between teaching styles and learners' academic engagement. Additionally, Ghaznavi et al. (2021) explored the role of teaching multiple intelligences in

enhancing learner engagement and found that this approach not only improves learners' multiple intelligence but also fosters their academic engagement.

In recent times, learner engagement has emerged as a critical factor in addressing various educational challenges, such as low achievement, high dropout rates, and increased levels of learner fatigue and aggression (Boekaerts, 2016). Utilizing self-determination theory, Chen et al. (2021) argued that the interplay between contextual characteristics and learners' psychological needs significantly influences learner engagement within an educational context. Hospel and Galand (2016) emphasized the pivotal role of instructors in meeting learners' needs and promoting engagement through the provision of autonomy support. They asserted that instructors' autonomy support positively impacts learners' engagement. Reeve and Shin (2019) similarly found that instructors' autonomy support serves as a significant predictor of learners' engagement. Furthermore, Noels et al. (2019) confirmed a positive and significant correlation among engagement, motivation, autonomy, and competence.

In conclusion, learner engagement encompasses cognitive, behavioral, emotional, and agentic dimensions, reflecting effort, participation, and connection with education. It is linked to positive psychological factors and associated with academic achievement, resilience, motivation, and self-determination. Instructional methodologies play a crucial role, with outdated approaches hindering engagement and innovative methods enhancing it. Teachers' autonomy support is vital in meeting learners' needs and fostering engagement. Efforts should focus on creating conducive learning environments

to promote engagement, motivation, autonomy, and competence, optimizing teaching practices for improved educational outcomes.

The Role of Teacher Empathy in Learner Engagement

The subject of teacher empathy and its impact on learner engagement is of significant importance in the field of education. Learner engagement refers to the level of psychological investment and commitment exhibited by students in acquiring, comprehending, and mastering the skills, crafts, or knowledge emphasized in their coursework. Teacher empathy, on the other hand, plays a critical role in the ethical, communal, and educational growth of both teachers and learners. Empathic teachers possess the ability to reduce learners' aggression, enhance their psychological well-being, and minimize incidents of violent behavior.

Several factors including gender and attitude have been found to influence empathy levels. Teachers with higher levels of cognitive empathy tend to employ problem-solving strategies and experience reduced levels of job burnout within educational contexts. In the medical domain, the cultivation of empathy among future healthcare professionals is of paramount importance. However, the concept of clinical empathy remains poorly defined, and measurement methods for its enhancement are unclear. Therefore, it is imperative to investigate the correlation between teacher empathy and learner engagement to facilitate the implementation of effective instructional interventions. This will help to promote positive learning outcomes and facilitate the growth and development of both teachers and learners.

Various moral values and qualities, such as teacher empathy, sympathy, tolerance, kindness, and justice, are integral components of teacher-learner relationships within instructional frameworks (Campbell, 2003). Roorda et al. (2017) found that positive and emotional connections between teachers and learners significantly influence learners' academic accomplishments. Several studies (Wang & Guan, 2020; Xie & Derakhshan, 2021; Wang et al., 2022) have demonstrated that fostering positive teacher-learner rapport can inspire motivation and engagement in learning. Furthermore, Vandenbroucke et al. (2018) identified a positive impact of teacher-learner rapport on learners' cognitive skills. Zhou (2021) conducted a study focused on exploring the influence of teacher-learner rapport on learner engagement within educational environments, highlighting the positive effects of establishing rapport and empathy. Empathetic instructors, according to Schutz and DeCuir (2002), enhance learners' willingness to participate in educational settings and promote their self-confidence within the school environment. Varga (2017) further discovered that learners' desire to engage in the classroom is positively affected by their interactions with instructors. Nathan (2018) proposed that teachers who possess the ability to develop positive relationships with learners and understand their challenges can effectively enhance learners' motivation to participate in learning, leading to increased self-sufficiency and academic achievement.

Establishing a positive emotional bond with learners in educational environments holds immense significance for educators. By demonstrating positive emotional attributes such as compassion, empathy, and sympathy, teachers can

effectively engage learners in their academic pursuits (Frisby et al., 2016; Wang, 2017; Wang et al., 2022). Cooper (2002) underscored the strong association between positive personal interactions, including teacher empathy, and teaching quality, learning accomplishments, and learner engagement in educational contexts. Arnold (2009) emphasized that fostering an emotionally positive atmosphere optimizes the brain's receptiveness to learning. Cultivating empathy within positive teacher-learner relationships alleviates anxiety and promotes increased engagement. Rogers et al. (2014) emphasized the pivotal role of instructors as role models, advocating the use of empathy, honesty, and respect during interactions with learners to foster emotional safety, autonomy, engagement, and curiosity, thereby deepening learners' active participation in the classroom. Hashim et al. (2014) confirmed the significant link between teacher-learner rapport and learner engagement, highlighting the importance of English teachers' affection, empathy, and genuine concern for learners' well-being in enhancing their willingness to actively participate in educational settings. Similarly, Wang et al. (2022) stressed the importance of integrating positive emotional behaviors, such as honesty, appreciation, empathy, and attentiveness to learners' needs, within instructional practices, as these behaviors fundamentally generate motivation and foster engagement. Bullough (2019) also highlighted that teacher empathy not only enhances learner engagement but also contributes to teachers' pursuit of social justice across diverse contexts.

Mercer and Dörnyei (2020) emphasized the pivotal role of instructors in promoting learner engagement, recognizing its dynamic nature. They advocated for

instructors to adopt crucial strategies aimed at enhancing the commitment of EFL learners, such as demonstrating empathy, compassion, kindness, and providing various forms of support. These actions contribute to improving both behavioral and emotional engagement among learners. Khan and Armstrong (2019) echoed the importance of cultivating compassion, empathy, and sympathy among teachers as integral factors in fostering learner engagement and facilitating positive performance outcomes. Similarly, Sadoughi and Hejazi (2021) established a direct link between teacher support and academic engagement, highlighting the positive effects of learners experiencing empathy, affection, and support from their instructors. Such experiences not only enhance their persistence in education but also boost self-confidence and willingness to actively participate in educational contexts. Derakhshan (2021) further underscored the ethical responsibility of empathic instructors in facilitating learners' engagement in peer interactions, which contributes to improved educational quality and positive behavioral development. Additionally, Teo et al. (2022) demonstrated a significant correlation between English teachers' close relationships with learners and learner involvement, particularly in game-based flipped ESP educational contexts. This research highlighted the influence of teacher immediacy, emphasizing its impact on learner engagement.

Implications and Suggestion for Further Research

The importance of online learning has brought attention to investigating the impact of teacher empathy on student engagement in online contexts. Therefore, it is crucial for future research to focus on exploring the influence of

teacher empathy on student engagement in online learning environments. This can be achieved by designing instructional practices that prioritize empathy and engagement in online learning environments. Moreover, further research is needed to examine the impact of individual variables, such as personality traits and negative emotions, on learner engagement.

The study's findings have significant implications for language education. In particular, language educators should prioritize empathy and building a relationship with learners to improve their engagement in the language classroom. Educators can create a positive learning environment by adapting instructional materials and techniques that foster positive attitudes and engagement among learners. Teacher educators have an essential role in promoting empathy and engagement among language teachers. They can organize workshops and provide strategies to help teachers improve their empathy and engagement skills by emphasizing the importance of modeling empathy, active listening, and avoiding interruptions during learner interactions. Policymakers should design engagement programs that aim to reduce communication apprehension among learners and promote positive behaviors.

Further research is necessary to explore the relationship between teacher empathy and language learning outcomes. Longitudinal studies can provide insights into intrapersonal and interpersonal emotions in language learning, including the impact of teacher empathy on learners' working memory and emotional intelligence. Additionally, it is crucial to explore gender differences in teacher empathy within language learning contexts. Investigating the impact

of individual variables, such as personality traits and negative emotions, on learner engagement is also essential for a better understanding of the role of teacher empathy in language education.

In essence, this study emphasizes the significance of empathy and engagement in language education, especially in online learning contexts. By prioritizing empathy and building rapport between language educators and learners, educators can create a positive learning environment that promotes motivation, enthusiasm, and concentration among learners. Teacher educators and policymakers can play a critical role in promoting empathy and engagement among language teachers and learners. Further research is needed to explore the relationships between teacher empathy, individual variables, and language learning outcomes. Ultimately, prioritizing empathy and engagement in language education can enhance language learning outcomes and contribute to the overall success of language learners.

References

- Arghode, V., Yalvac, B., and Liew, J. (2013). Teacher empathy and science education: a collective case study. *Eurasia J. Math. Sci. Technol. Educ.* 9, 89–99. [doi: 10.12973/eurasia.2013.921a](https://doi.org/10.12973/eurasia.2013.921a)
- Amicucci, G., Tempesta, D., Salfi, F., D’Atri, A., Viselli, L., De Gennaro, L., et al. (2021). The effect of 5 nights of sleep restriction on empathic propensity. *J. Sleep Res.* 30, 1–9. [doi: 10.1111/jsr.13325](https://doi.org/10.1111/jsr.13325)
- Arnold, J. (2009). Affect in L2 learning and teaching. *Estudios Lingüíst. Inglesa Aplicada* 9, 145–151.
- Aldrup, K., Carstensen, B., & Klusmann, U. (2022). Is empathy the key to effective teaching? A systematic review of its association with teacher-student interactions and student

- outcomes. *Educational Psychology Review*, 34(3), 1177-1216. doi.org/10.1007/s10648-021-09649-y
- Baron-Cohen, S., and Wheelwright, S. (2004). The empathy quotient: an investigation of adults with Asperger syndrome or high functioning autism, and normal sex differences. *J. Autism Dev. Disord.* 34, 163–175. doi: [10.1023/B: JADD.0000022607.19833.00](https://doi.org/10.1023/B: JADD.0000022607.19833.00)
 - Blair, R. (2006). Responding to the emotions of others: dissociating forms of empathy through the study of typical and psychiatric populations. *Conscious. Cogn.* 14, 698–718. doi: [10.1016/j.concog.2005.06.004](https://doi.org/10.1016/j.concog.2005.06.004)
 - Boekaerts, M. (2016). Engagement as an inherent aspect of the learning process. *Learn. Instr.* 43, 76–83. doi: [10.1016/j.learninstruc.2016.02.001](https://doi.org/10.1016/j.learninstruc.2016.02.001)
 - Bullough, R. V. Jr. (2019). Empathy, teaching dispositions, social justice and teacher education. *Teach. Teach. Theory Pract.* 25, 507–522. doi: [10.1080/13540602.2019.1602518](https://doi.org/10.1080/13540602.2019.1602518)
 - Campbell, E. (2003). Moral lessons: the ethical role of teachers. *Educ. Res. Eval.* 9, 25–50. doi: [10.1076/edre.9.1.25.13550](https://doi.org/10.1076/edre.9.1.25.13550)
 - Chang, D. F., Chien, W. C., and Chou, W. C. (2016). Meta-analysis approach to detect the effect of student engagement on academic achievement. *ICIC Express Lett.* 10, 2241–2246. doi: [10.1186/s13054-016-1208-6](https://doi.org/10.1186/s13054-016-1208-6)
 - Chen, P., Bao, C., and Gao, Q. (2021). Proactive personality and academic engagement: the mediating effects of teacher-student relationships and academic self-efficacy. *Front. Psychol.* 12:652994. doi: [10.3389/fpsyg.2021.652994](https://doi.org/10.3389/fpsyg.2021.652994)
 - Cialdini, R. B., Brown, S. L., Lewis, B. P., Luce, C., and Neuberg, S. L. (1997). Reinterpreting the empathy–altruism relationship: when one into one equals oneness. *J. Pers. Soc. Psychol.* 73, 481–492. doi: [10.1037/0022-3514.73.3.481](https://doi.org/10.1037/0022-3514.73.3.481)
 - Cooper, B. (2002). *Teachers as Moral Models: The Role of Empathy in the Relationships Between Teachers and Their Pupils*. Doctoral thesis. Leeds: Leeds Metropolitan University.

- Cooper, B. (2004). Empathy, interaction and caring: teachers' roles in a constrained environment. *Pastoral Care Educ.* 22, 12–12. [doi: 10.1111/j.0264-3944.2004.00299](https://doi.org/10.1111/j.0264-3944.2004.00299).
- Cooper, B. (2010). In search of profound empathy in learning relationships: understanding the mathematics of moral learning environments. *J. Moral Educ.* 39, 79–99. [doi: 10.1080/03057240903528717](https://doi.org/10.1080/03057240903528717)
- Csaszar, I. E., Curry, J. R., and Lastrapes, R. E. (2018). Effects of loving kindness meditation on student teachers' reported levels of stress and empathy. *Teach. Educ. Q.* 45, 93–116.
- Derakhshan, A. (2021). The predictability of Turkman students' academic engagement through Persian language teachers' nonverbal immediacy and credibility. *J. Teach. Persian Speak. Other Lang* 10, 3–26. [doi: 10.30479/JTPSOL.2021.14654.1506](https://doi.org/10.30479/JTPSOL.2021.14654.1506)
- Dincer, A., Yeşilyurt, S., Noels, K. A., and Vargas Lascano, D. I. (2019). Self-determination and classroom engagement of EFL Learners: a mixed-methods study of the self-system model of motivational development. *Sage Open* 9, 1–15.
- Eisenberg, N., Spinrad, T. L., and Taylor, Z. E. (2014). *The Handbook of Virtue Ethics*. London: Routledge.
- Eccles, J. S. (2016). Engagement: where to next? *Learn. Instr.* 43, 71–75. [doi: 10.1016/j.learninstruc.2016.02.003](https://doi.org/10.1016/j.learninstruc.2016.02.003)
- Fang, F., and Tang, X. (2021). The relationship between Chinese English major students' learning anxiety and enjoyment in an English language classroom: a positive psychology perspective. *Front. Psychol.* 12:705244. [doi: 10.3389/fpsyg.2021.705244](https://doi.org/10.3389/fpsyg.2021.705244)
- Frisby, B. N., Beck, A. C., Smith Bachman, A., Byars, C., Lamberth, C., and Thompson, J. (2016). The influence of instructor-student rapport on instructors' professional and organizational outcomes. *Commun. Res. Rep.* 33, 103–110. [doi: 10.1080/08824096.2016.1154834](https://doi.org/10.1080/08824096.2016.1154834)
- Gallagher, M. W., Marques, S. C., and Lopez, S. J. (2017). Hope and the academic trajectory of college students. *J. Happiness Stud.* 18, 341–352. [doi: 10.1007/s10902-016-9727-z](https://doi.org/10.1007/s10902-016-9727-z)

- Gandhi, A. U., Dawood, S., and Schroder, H. S. (2021). Empathy mind-set moderates the association between low empathy and social aggression. *J. Interpers. Violence* 36, N1679–N1697. [doi: 10.1177/0886260517747604](https://doi.org/10.1177/0886260517747604)
- Gao, Z., Ye, T., Shen, M., and Perry, A. (2016). Working memory capacity of biological movements predicts empathy traits. *Psychonom. Bull. Rev.* 23, 468–475. [doi: 10.3758/s13423-015-0896-2](https://doi.org/10.3758/s13423-015-0896-2)
- Gazzaniga, M. (2008). *Human: The Science Behind What Makes us Unique*. New York, N: HarperCollins.
- Ghaznavi, N., Haddad-Narafshan, M., and Tajadini, M. (2021). The implementation of a multiple intelligences teaching approach: classroom engagement and physically disabled learners. *Cogent Psychol.* 8, 1–21. [doi: 10.1080/23311908.2021.1880258](https://doi.org/10.1080/23311908.2021.1880258)
- Ghelichli, Y., Seyyedrezaei, S. H., Barani, G., and Mazandarani, O. (2022). The mediating role of self-regulation between student engagement and motivation among Iranian EFL learners: a structural equation modeling approach. *J. Mod. Res. Engl. Lang. Stud.* 9, 183–206. [doi: 10.30479/jmrels.2020.13689.1679](https://doi.org/10.30479/jmrels.2020.13689.1679)
- Goroshit, M., and Hen, M. (2016). Teachers’ empathy: can it be predicted by self-efficacy? *Teach. Teach.* 22, 805–818. [doi: 10.1080/13540602.2016.1185818](https://doi.org/10.1080/13540602.2016.1185818)
- Grasha, A. (1996). *Teaching with Style. A Practical Guide to Enhancing Learning by Understanding Teaching and Learning Styles*. San Bernadio, CA: Alliance Publishers.
- Guilloteaux, M. J. (2016). Student engagement during EFL high school lessons in Korea. *Exp. Sample Study* 23, 21–46. [doi: 10.15334/FLE.2016.23.1.21](https://doi.org/10.15334/FLE.2016.23.1.21)
- Hassanpour Souderjani, R., Heidari Darani, L., and Hosseinpour, N. (2021). Life satisfaction and empathy in Iranian EFL teachers: a correlational study. *Int. J. Foreign Lang. Teach. Res.* 9, 109–129.
- Hen, M. (2010). Sense of self-efficacy and empathy among teachers who include in their classrooms students with special needs. *J. Study Res. Vis. Pract.* 13, 134–165.

- Hiver, P., Al-Hoorie, A., Vitta, J., and Wu, J. (2021). Engagement in language learning: a systematic review of 20 years of research methods and definitions. *Lang. Teach. Res.* 10, 1–30. doi: [10.1002/14651858.MR000028](https://doi.org/10.1002/14651858.MR000028). [pub3](#)
- Hospel, V., and Galand, B. (2016). Are both classroom autonomy support and structure equally important for students' engagement? A multilevel analysis. *Learn. Instr.* 41, 1–10. doi: [10.1016/j.learninstruc.2015.09.001](https://doi.org/10.1016/j.learninstruc.2015.09.001)
- Hung, H. (2015). Flipping the classroom for English language learners to foster active learning. *Comput. Assist. Lang. Learn.* 28, 81–96. doi: [10.1080/09588221.2014.967701](https://doi.org/10.1080/09588221.2014.967701)
- Ikiz, F. (2009). Investigation of counselor empathy with respect to safe schools. *Proc. Soc. Behav. Sci.* 1, 2057–2062. doi: [10.1016/j.sbspro.2009.01.361](https://doi.org/10.1016/j.sbspro.2009.01.361)
- Khan, S., and Armstrong, A. (2019). Math-a-polka: mathematics as a place of loving kindness. *J. Can. Assoc. Curric. Stud.* 17, 1–12.
- Klassen, R. M., Durksen, T., Kim, L., Patterson, F., Rowett, E., and Warwick, J. (2017). Developing a proof-of-concept selection test for entry into primary teacher education programs. *Int. J. Assess. Tools Educ.* 4, 96–114. doi: [10.21449/ijate.275772](https://doi.org/10.21449/ijate.275772)
- Lam, T. C. M., Kolomitro, K., and Alamparambil, F. C. (2011). Empathy training: methods, evaluation practices, and validity. *J. Multi Disciplinary Eval.* 7, 162– 200.
- Lamborn, S., Newmann, F., and Wehlage, G. (1992). “The significance and sources of student engagement,” in *Student Engagement and Achievement in American Secondary Schools*, ed. F. Newmann (New York, NY: Teachers College Press), 11–39.
- Lei, H., Cui, Y., and Zhou, W. (2018). Relationships between student engagement and academic achievement: a meta-analysis. *Soc. Behav. Pers.* 46, 517–528. doi: [10.2224/sbp.7054](https://doi.org/10.2224/sbp.7054)
- Lin, T. (2012). *Student Engagement and Motivation in the Foreign Language Classroom*. Unpublished Ph.D. thesis. Vancouver, WA: Washington State University.

- Liu, B. (2016). Effect of L2 exposure: from a perspective of discourse markers. *Appl. Linguist. Rev.* 7, 73–98. [doi: 10.1515/applirev-2016-0004](https://doi.org/10.1515/applirev-2016-0004)
- Mercer, S. (2019). “Language learner engagement: setting the scene,” in *Second Handbook of English Language Teaching. Springer International Handbooks of Education*, ed. X. Gao (Cham: Springer), [doi: 10.1007/978-3-030-02899-2_40](https://doi.org/10.1007/978-3-030-02899-2_40)
- Mercer, S., and Dörnyei, Z. (2020). *Engaging Language Learners in Contemporary Classrooms*. Cambridge: Cambridge University Press.
- Mercer, S., and Reynolds, W. J. (2002). Empathy and quality of care. *Br. J. Gen. Pract.* 52, 9–12.
- Moore, M., and Kearsley, G. (2004). *Distance Education: A Systems View*. Belmont CA: Wadsworth Publishing Company.
- Nathan, L. (2018). *Student-Teacher Rapport and its Impact on Students’ Sense of Fulfillment* Master’s thesis. Long Beach, CA: California State University.
- Noels, K., Vargas, L. D., and Saumure, K. (2019). The development of self-determination across the language course. *Stud. Second Lang. Acquis.* 41, 1–31.
- Noels, K. A., Vargas Lascano, D. I., and Saumure, K. (2019). The development of self-determination across the language course: trajectories of motivational change and the dynamic interplay of psychological needs, orientations, and engagement. *Stud. Second Lang. Acquis.* 41, 821–851. [doi: 10.1017/S0272263118000189](https://doi.org/10.1017/S0272263118000189)
- Oga-Baldwin, W. L. Q., and Nakata, Y. (2017). Engagement, gender, and motivation: a predictive model for Japanese young language learners. *System* 65, 151–163. [doi: 10.1016/j.system.2017.01.011](https://doi.org/10.1016/j.system.2017.01.011)
- Oga-Baldwin, W. Q. (2019). Acting, thinking, feeling, making, collaborating: the engagement process in foreign language learning. *System* 86, 1–10. [doi: 10.1016/j.system.2019.102128](https://doi.org/10.1016/j.system.2019.102128)
- O’Neal, C. R., Boyars, M. Y., and Riley, L. W. (2019). Dual language learners’ grit, engagement, and literacy achievement in

- elementary school. *Sch. Psychol. Int.* 40, 598–623. [doi: 10.1177/0143034319875176](https://doi.org/10.1177/0143034319875176)
- Parchomiuk, M. (2019). Teacher empathy and attitudes towards individuals with disabilities. *Int. J. Disabil. Dev. Educ.* 66, 56–69. [doi: 10.1080/1034912X.2018.1460654](https://doi.org/10.1080/1034912X.2018.1460654)
 - Peng, C. (2021). The academic motivation and engagement of students in English as a foreign language classes: does teacher praise matter? *Front. Psychol.* 12:778174. [doi: 10.3389/fpsyg.2021.778174](https://doi.org/10.3389/fpsyg.2021.778174)
 - Pidbutska, N., Demidova, Y., and Knysh, A. (2021). Gender aspects of empathy in online learning of adolescents. *J. Educ. Cult. Soc.* 12, 314–321. [doi: 10.15503/jecs2021.1.314.321](https://doi.org/10.15503/jecs2021.1.314.321)
 - Rajabi, M., and Ghezelsefloo, M. (2020). The relationship between job stress and job-related affective well-being among English language teachers: the moderating role of self-compassion. *Iran. J. Engl. Acad. Purp.* 9, 95–105.
 - Reeve, J. (2013). How students create motivationally supportive learning environments for themselves: the concept of agentic engagement. *J. Educ. Psychol.* 105, 579–595. [doi: 10.1037/a0032690](https://doi.org/10.1037/a0032690)
 - Reeve, J., and Shin, S. (2019). How teachers can support students' agentic engagement. *Theory Pract.* 59, 1–14. [doi: 10.1080/00405841.2019.1702451](https://doi.org/10.1080/00405841.2019.1702451)
 - Reeve, J., and Tseng, C. M. (2011). Agency as a fourth aspect of students' engagement during learning activities. *Contemp. Educ. Psychol.* 36, 257–267. [doi: 10.1016/j.cedpsych.2011.05.002](https://doi.org/10.1016/j.cedpsych.2011.05.002)
 - Reilly, P., and Sánchez Rosas, J. (2019). The achievement emotions of English language learners in Mexico. *Electron. J. Engl. Lang. Teach.* 16, 34–48.
 - Reniers, R., Corcoran, R., Drake, R., Shryane, N., and Völlm, B. (2011). The QCAE: a questionnaire of cognitive and affective empathy. *J. Pers. Assess.* 93, 84–95. [doi: 10.1080/00223891.2010.528484](https://doi.org/10.1080/00223891.2010.528484)

- Reschly, A. L., Pohl, A. J., and Christenson, S. L. (2020). *Student Engagement: Effective Academic, Behavioral, Cognitive, and Affective Interventions at School*. Berlin: Springer Nature.
- Richardson, J. C., Arbaugh, J. B., Cleveland-Innes, M., Ice, P., Swan, K. P., and Garrison, D. R. (2012). "Using the community of inquiry framework to inform effective instructional design," in *The Next Generation of Distance Education*, eds L. Moller and J. B. Heuett (Berlin: Springer), 97–125. [doi: 10.1007/978-1-4614-1785-9_7](https://doi.org/10.1007/978-1-4614-1785-9_7)
- Robinson, W. L. (2015). *Grit and Demographic Characteristics Associated With Nursing Student Course Engagement*. Doctoral thesis. Bloomington, IN: Indiana University.
- Rogers, C. R. (1995). What understanding and acceptance mean to me. *J. Hum. Psychol.* 35, 7–22.
- Rogers, C. R., Lyon, H. C. Jr., and Tausch, R. (2014). *On Becoming an Effective Teacher: Person-Centered Teaching, Psychology, Philosophy, and Dialogues With Carl R.* New York, NY: Routledge.
- Roorda, D. L., Jak, S., Zee, M., Oort, F. J., and Koomen, H. M. (2017). Affective teacher-student relationships and students' engagement and achievement: a meta-analytic update and test of the mediating role of engagement. *Sch. Psychol. Rev.* 46, 239–261. [doi: 10.17105/SPR-2017-0035.V46-3](https://doi.org/10.17105/SPR-2017-0035.V46-3)
- Ryan, R. M., and Deci, E. L. (2017). *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness*. New York, NY: The Guilford Press.
- Sadoughi, M., and Hejazi, S. Y. (2021). Teacher support and academic engagement among EFL learners: the role of positive academic emotions. *Stud. Educ. Eval.* 70, 1–8. [doi: 10.1016/j.stueduc.2021.101060](https://doi.org/10.1016/j.stueduc.2021.101060)
- Salem, M., and Tabatabaei, O. (2015). The relationship between emotional intelligence and emotional empathy of EFL teachers regarding to gender. *Int. J. Educ. Invest.* 2, 146–154.

- Schutz, P. A., and DeCuir, J. T. (2002). Inquiry on emotions in education. *Educ. Psychol.* 37, 125–134. [doi: 10.1207/S15326985EP3702_7](https://doi.org/10.1207/S15326985EP3702_7)
- Seligman, M. E. P. (2011). *Flourish: A Visionary New Understanding of Happiness and Well Being*. New York, NY: Free Press.
- Serbati, A., Aquario, D., Da Re, L., Paccagnella, O., and Felisatti, E. (2020). Exploring good teaching practices and needs for improvement: implications for staff development. *J. Educ. Cult. Psychol. Stud.* 21, 43–64. [doi: 10.7358/ecps-2020-021-ser](https://doi.org/10.7358/ecps-2020-021-ser)
- Shaaria, A. S., Yusof, N. M., Ghazali, I. M., Osman, R. H., and Dzahir, N. F. (2014). The relationship between lecturers' teaching style and students' academic engagement. *Proc. Soc. Behav. Sci.* 118, 10–20. [doi: 10.5811/westjem.2020.11.49125](https://doi.org/10.5811/westjem.2020.11.49125)
- Skinner, E. A., Kindermann, T. A., and Furrer, C. J. (2009). A motivational perspective on engagement and disaffection: conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educ. Psychol. Meas.* 69, 493–525.
- Smith, R. L., and Rose, A. J. (2011). The “cost of caring” in youths' friendships: considering associations among social perspective taking, co-rumination, and empathetic distress. *Dev. Psychol.* 47, 1792–1803. [doi: 10.1037/a0025309](https://doi.org/10.1037/a0025309)
- Stojiljkovic, S., Djigic, G., and Zlatkovic, B. (2012). Empathy and teachers' roles. *Proc. Soc. Behav. Sci.* 69, 960–966. [doi: 10.1016/j.sbspro.2012.12.021](https://doi.org/10.1016/j.sbspro.2012.12.021)
- Teo, T., Khazaie, S., and Derakhshan, A. (2022). Exploring teacher immediacy-(non)dependency in the tutored augmented reality game-assisted flipped classrooms of English for medical purposes comprehension among the Asian students. *Comput. Educ.* 179, 1–20. [doi: 10.1016/j.compedu.2021.104406](https://doi.org/10.1016/j.compedu.2021.104406)
- Tettegah, S., and Anderson, C. J. (2007). Pre-service teachers' empathy and cognitions: statistical analysis of text data by graphical models. *Contemp. Educ. Psychol.* 32, 48–82. [doi: 10.1016/j.cedpsych.2006.10.010](https://doi.org/10.1016/j.cedpsych.2006.10.010)

- Tusche, A., Böckler, A., Kanske, P., Trautwein, F. M., and Singer, T. (2016). Decoding the charitable brain: empathy, perspective taking, and attention shifts differentially predict altruistic giving. *J. Neurosci. Off. J. Soc. Neurosci.* 36, 4719–4732. [doi: 10.1523/JNEUROSCI.3392-15.2016](https://doi.org/10.1523/JNEUROSCI.3392-15.2016)
- Vandembroucke, L., Spilt, J., Verschueren, K., Piccinin, C., and Baeyens, D. (2018). The classroom as a developmental context for cognitive development: a meta-analysis on the importance of teacher–student interactions for children’s executive functions. *Rev. Educ. Res.* 88, 125–164. [doi: 10.3102/ 0034654317743200](https://doi.org/10.3102/0034654317743200)
- Varga, M. (2017). *The Effects of Teacher-Student Relationships on the Academic Engagement of Students*. Master thesis. Baltimore, MD: Goucher College.
- Vinayak, S., and Judge, J. (2018). Resilience and empathy as predictors of psychological wellbeing among adolescents. *Int. J. Health Sci. Res.* 8, 192–200.
- Wang, J., Zhang, X., & Zhang, L. J. (2022). Effects of teacher engagement on students’ achievement in an online English as a foreign language classroom: The mediating role of autonomous motivation and positive emotions. *Frontiers in Psychology*, 13. [doi: 10.3389/fpsyg.2022.950652](https://doi.org/10.3389/fpsyg.2022.950652)
- Wang, Y., Derakhshan, A., and Pan, Z. (2022). Positioning an agenda on a loving pedagogy in second language acquisition: conceptualization, practice, and research. *Front. Psychol.* 13:894190. [doi: 10.3389/fpsyg.2022.894190](https://doi.org/10.3389/fpsyg.2022.894190)
- Wang, Y. L. (2017). Construction elements and path of practical education model in universities. *Eurasia J. Math. Sci. Technol.* 13, 6775–6782. [doi: 10.12973/ ejmste/78525](https://doi.org/10.12973/ejmste/78525)
- Wang, Y. L., and Guan, H. F. (2020). Exploring demotivation factors of Chinese learners of English as a foreign language based on positive psychology. *Rev. Argent. Clin. Psicol.* 29, 851–861. [doi: 10.24205/03276716.2020.116](https://doi.org/10.24205/03276716.2020.116)
- Wang, Y. L., Derakhshan, A., and Zhang, L. J. (2021). Researching and practicing positive psychology in second/foreign language learning and teaching: the past, current status and future

- directions. *Front. Psychol.* 12:731721. [doi: 10.3389/fpsyg.2021.731721](https://doi.org/10.3389/fpsyg.2021.731721)
- Weisz, E., Ong, D. C., Carlson, R. W., and Zaki, J. (2021). Building empathy through motivation-based interventions. *Emotion (Washington, D.C.)* 21, 990– 999. [doi: 10.1037/emo0000929](https://doi.org/10.1037/emo0000929)
 - Weisz, E., and Cikara, M. (2021). Strategic regulation of empathy. *Trends Cogn. Sci.* 25, 213–227. [doi: 10.1016/j.tics.2020.12.002](https://doi.org/10.1016/j.tics.2020.12.002)
 - Wink, M. N., LaRusso, M. D., and Smith, R. L. (2021). Teacher empathy and students with problem behaviors: examining teachers’ perceptions, responses, relationships, and burnout. *Psychol. Sch.* 58, 1575–1596. [doi: 10.1002/pits.22516](https://doi.org/10.1002/pits.22516)
 - Xie, F., and Derakhshan, A. (2021). A conceptual review of positive teacher interpersonal communication behaviors in the instructional context. *Front. Psychol.* 12:708490. [doi: 10.3389/fpsyg.2021.708490](https://doi.org/10.3389/fpsyg.2021.708490)
 - Yang, P. (2021). Exploring the relationship between Chinese EFL students’ grit, well-being, and classroom enjoyment. *Front. Psychol.* 12:762945. [doi: 10.3389/fpsyg.2021.762945](https://doi.org/10.3389/fpsyg.2021.762945)
 - Zhao, H., Xiong, J., Zhang, Z., and Qi, C. (2021). Growth mindset and college students’ learning engagement during the COVID-19 pandemic: a serial mediation model. *Front. Psychol.* 12:621094. [doi: 10.3389/fpsyg.2021.621094](https://doi.org/10.3389/fpsyg.2021.621094)
 - Zhou, X. (2021). Towards the positive consequences of teacher-student rapport for students’ academic engagement in the practical instruction classrooms. *Front. Psychol.* 12:759785. [doi: 10.3389/fpsyg.2021.759785](https://doi.org/10.3389/fpsyg.2021.759785)
 - Zhu, J., Wang, X. Q., He, X., Hu, Y. Y., Li, F., Liu, M. F., et al. (2019). Affective and cognitive empathy in pre-teachers with strong or weak professional identity: an ERP study. *Front. Hum. Neurosci.* 13:175–183. [doi: 10.3389/fnhum.2019.00175](https://doi.org/10.3389/fnhum.2019.00175)
