

Emotional Intelligence: implications in education, technology and psychology
Inteligencia emocional: implicaciones en educación, tecnología y psicología

Ocana Flores Hernán Isaac.

DIMENSIÓN CIENTÍFICA

Enero - junio, V°7-N°1; 2026

Recibido: 29-12-2025

Aceptado: 08-01-2026

Publicado: 30-06-2026

PAIS

- Australia - Brisbane

INSTITUCION

- The University of Queensland

CORREO:

✉ hiocana@uqconnect.edu.au

ORCID:

🌐 <https://orcid.org/0000-0001-6258-3828>

FORMATO DE CITA APA.

Ocana, H. (2026). *Emotional Intelligence: implications in education, technology and psychology*. Revista G-ner@ndo, V°7 (N°1), P. 167- 191.

Abstract

Emotional technologies can implement models to foster and maintain positive emotions in humans. This study explores the modeling process for people experiencing difficulties in controlling emotions, in relation to their well-being. Through quantitative analysis of 623 data samples using partial least squares structural equation modeling (PLS-SEM), the impact relationships in the research model were clarified. The results show a strong correlation among the variables: greater emotional intelligence allows for the mobilization of greater social support, which leads to significantly greater well-being. In addition, this research offers new perspectives and useful suggestions for other fields such as education, human-computer interactive technologies, and communication.

Keywords: Human Computer Interaction, Emotional intelligence, Higher education students, Perceived social support, Subjective well-being.

Resumen

Las tecnologías emocionales pueden implementar modelos para fomentar y mantener las emociones positivas en los seres humanos. Este estudio explora el proceso de modelamiento para personas que experimentan dificultades en el control de sus emociones, en relación con su bienestar. Mediante el análisis cuantitativo de 623 muestras de datos utilizando el modelado de ecuaciones estructurales por mínimos cuadrados parciales (PLS-SEM), se esclarecieron las relaciones de impacto en el modelo de investigación. Los resultados muestran una fuerte correlación entre las variables: una mayor inteligencia emocional permite movilizar un mayor apoyo social lo cual deriva en un bienestar significativamente mayor. Además, esta investigación ofrece nuevas perspectivas y sugerencias útiles para otros campos como la educación, la tecnología humano-computador y la comunicación.

Palabras clave: Interacción Humano-Computador, Inteligencia emocional, Estudiantes de educación superior, Apoyo social percibido, Bienestar subjetivo.

Introduction

There is an increasing focus on wellbeing across academia. For example; researchers have argued that positive thoughts can contribute to incrementing the subjective well-being across human beings (Arslan, 2019). With the emergence of positive psychology, research has focused on studying the strengths of each individual and the abilities that can help humans improve themselves (Seligman, 2002). This has impacted various areas such as human computer interactive (HCI) models (Flores, 2023). Researchers have gradually shifted to studying positive factors, which have contributed to the development of each individual in particular and society in general. Positive concepts such as emotional intelligence, social support perception and subjective well-being have become the focus of this study.

Emotional intelligence (EI) is a popular concept and the literature on emotional intelligence suggests that this concept is closely related to life satisfaction in general (Palmer et al., 2002). EI relates to the ability to maintain consistent attitudes and actions in different situations. It is expressed through specific characteristics or behaviors such as empathy, decisiveness and optimism (Petrides & Furnham, 2001). EI traits can accurately predict positive factors such as well-being and mental health of individuals (Martins, Ramalho & Morin, 2010). EI is also a strong predictor of psychological well-being in adults (Petrides, Hudry, Michalaria, Swami & Sevdalis, 2011). In general, improving emotional intelligence (EI) can help improve subjective well-being and reduce negative thoughts and behaviors towards society.

Furthermore, emotional intelligence is related to the perception of social support. The study by Petrides, Sangareau, Furnham and Frederickson (2006) suggested that students with high emotional intelligence tend to have fewer emotional problems and receive more support. Social support is understood as the process of interaction in which a person perceives or feels loved and appreciated, and feels part of a supportive social network with mutual obligations. According to studies by Lin, Hirschfeld and Margraf (2018), social support can be understood in terms of the type of support (encouragement, sharing, affection) and the source of support (family,

friends, other important individuals). Social support is one of the positive factors that contributes to the general subjective happiness of each individual (Gallagher & Vella-Brodrick, 2008; Ma, 2019; Wang, Kouvonen, Satka & Julkunen, 2019). Besides that, studies with adolescents have found a close relationship between social support received (from parents, teachers and friends) and students' happiness at school; individuals with high levels of social support have higher levels of well-being (Arslan, 2018; Rosenfeld, Porter & Parkinson, 2000; Tian, Liu, Huang & Huebner, 2013). Sources of social support may play an important role in students' happiness, and help enhance subjective well-being strongly.

In previous studies, the impact of EI on subjective well-being has been evaluated (Fernández-Berrocal, Extremera, 2016; Zeidner, Matthews, Roberts, 2012; Ruiz-Aranda, Extremera, Pineda-Galán, 2014). However, in recent years, few studies have used PSS as a mediator of the impact of EI on subjective well-being. This study was designed to explore psychological factors affecting the subjective well-being of university students in Vietnam, which may help students adapt more quickly to the learning environment. This work examines the role of emotional intelligence and perceived social support in university psychology for students' subjective well-being. It explores EI, PSS, and develops knowledge related to orientation toward subjective well-being.

LITERATURE REVIEW

Contextualizing Emotion in Educational Technologies

Emotional intelligence (EI) is defined as a person's ability to understand, distinguish, and regulate their emotions (Mayer, Caruso & Salovey, 2016), as well as the altruism and compassion necessary to quickly adapt to an environment and maintain emotional balance (Estrada, Monferrer, Rodríguez & Moliner, 2021). Mayer et al. also define EI as the ability to adjust thoughts and feelings, allowing greater awareness of one's personality and its use for mutual benefit. Likewise, Drigas and Papoutsis (2018) consider EI an essential element for physical and mental

health. EI is also used to analyze personal outcomes such as subjective well-being, mental health, and social relationships (Palmer, Donaldson & Stough, 2002; Wang & Kong, 2014).

Subjective Well-Being

Subjective well-being (SWB) is defined as a psychological state comprising three interdependent elements: the presence of positive emotions, the absence of negative emotions, and life satisfaction (Diener, Suh, Lucas & Smith, 1999). According to Fredrickson (2001), learning outcomes could be enhanced by broadening a person's mindset through positive thinking, which helps develop awareness and personal skills. Conversely, negative emotions can diminish cognition, creating pessimistic effects on educational actions. This theory is supported by empirical evidence: the study by King, McInerney, Ganotice and Villarosa (2015) found that many students with high positive affect desire to build close relationships at school. Many researchers also emphasize that life satisfaction is closely related to schooling levels (Datu & King, 2018; Lewis, Huebner, Malone & Valois, 2011).

Perceived Social Support

In recent years, considerable research has focused on social support (Ma, 2019; Zhou, Ntoumanis & Thøgersen-Ntoumani, 2019). According to Schwarzer, Knoll and Rieckmann (2004), social support refers to the role and value of social interactions that individuals have with others, which may offer assistance and comfort. Lin, Hirschfeld and Margraf (2019) categorized social support according to the type of support provided (e.g., practical, emotional, social), the source of support (e.g., family, friends, partner), and the quality or quantity of support (e.g., sufficiency, accessibility, responsiveness). Schwarzer et al. (2004) considered social support a tool for strengthening relationships, helping individuals feel part of a group, fostering social bonds, and creating a sense of belonging.

Based on existing literature and conceptual frameworks, one way to cope with life's challenges and difficulties involves receiving various forms of social support (such as emotional support) from people close to us, including family, friends, and partners (Bloom, Stewart,

Johnston, Banks & Fobair, 2001). These sources may offer comfort, encouragement, and guidance when facing stressful situations. Demaray and Malecki (2002) also found that the quality of social support can be measured through perceived social support, which reflects the quality of the individual's social network in offering necessary support. According to Rosenfeld, Richman and Bowen (2000), adolescents who feel supported by parents, peers, and/or teachers show better academic performance than those who lack such support.

Theoretical Foundation

Llamas-Díaz, Cabello, Megías-Robles and Fernández-Berrocal (2022) conducted the study "Systematic Review and Meta-Analysis: The Association Between Emotional Intelligence and Subjective Well-Being in Adolescents," which aimed to quantify the correlation between emotional intelligence (EI) and subjective well-being (SWB) in adolescents and examine the impact of EI training on well-being. The method consisted of directly measuring the subjective well-being of participants aged 10 to 19 and conducting two meta-analyses: one on EI and affectivity and another on hedonic well-being (HW) and cognitive well-being (CW) to assess the extent to which EI influences adolescent well-being. The results show a significant positive correlation between EI and overall well-being in adolescents. Moreover, the experimental group demonstrated noticeable improvement in emotional intelligence and well-being after EI training compared to the control group. This suggests that EI training can serve as an effective preventive measure for emotional disorders in adolescents, contributing to enhancing their quality of life.

Rey, Extremera and Sánchez-Álvarez (2019) conducted the study "Clarifying the Links Between Perceived Emotional Intelligence and Well-Being in Older Adults: Pathways Through Perceived Social Support From Family and Friends," which examined the mediating role of sources of perceived social support in the relationship between emotional intelligence indicators and well-being among older adults. Data were collected through surveys measuring emotional intelligence, perceived social support, and life satisfaction and happiness. The study found that emotional intelligence scores were significantly related to various types of perceived social

support, life satisfaction, and subjective well-being indicators. Older adults with higher emotional intelligence reported greater levels of support from friends and family, resulting in higher well-being. These findings suggest that emotional intelligence may play an essential role in older adults' well-being depending on the social support they perceive.

Research Hypotheses and Proposed Model

The Relationship Between Emotional Intelligence and Subjective Well-Being

Today, young people—especially university students—are prone to mental health issues such as anxiety disorders, stress, and depression (BlackDeer, Wolf, Maguin & Beeler-Stinn, 2021), and understanding and managing these issues is often difficult. Over time, these problems can significantly affect their mental well-being (Tejada-Gallardo, Blasco-Belled, Torrelles-Nadal & Alsinet, 2022). Therefore, emotional intelligence (EI) is considered a set of skills related to managing, perceiving, and empathizing with one's own and others' emotions and is viewed as a trainable factor that can improve mental health. Numerous studies have acknowledged that EI positively influences students' subjective well-being (LlamasDíaz, Cabello, MegíasRobles & FernándezBerrocal, 2022; CasinoGarcía, García-Pérez & Llinares-Insa, 2019; Xu, Pang & Xia, 2021). Individuals who develop stronger emotional intelligence tend to perceive environmental challenges more optimistically, thus enhancing their mental health (Valenti, Faraci & Magnano, 2021). In addition, higher EI scores are associated with confidence, creativity, flexibility, and improved emotional management, problem-solving, and conflict resolution skills (Maamari & Majdalani, 2019). In the long term, EI may positively affect subjective well-being by increasing the frequency of positive emotions and reducing negative emotional duration caused by obstacles (Sánchez-Álvarez, Extremera & Fernández-Berrocal, 2016).

H1: Emotional intelligence positively affects subjective well-being.

The Relationship Between EI, PSS, and SWB

Although researchers have recognized the link between EI and subjective well-being, little evidence exists regarding possible mediators in the relationship. Perceived social support (PSS)

is defined as an individual's perception of the availability and willingness of others to help when needed (Barrera, 1986), and is evaluated as the mediator in this study. The main sources of support for students typically come from family, friends, and important others such as mentors (Holt & Espelage, 2005). Some studies also support the idea that individuals with high emotional intelligence have better relationships and perceive greater social support than those with lower EI (Rey, Extremera & Sánchez-Álvarez, 2019; Malinauskas & Malinauskiene, 2020). These studies also show that EI has a positive impact on subjective well-being. Thus, beyond the direct influence of EI on subjective well-being, emotional intelligence may affect well-being through the individual's ability to perceive social support. In relationships, people tend to help individuals who demonstrate good emotional intelligence (Salovey, Bedell, Detweiler & Mayer, 1999). Therefore, individuals with higher EI may perceive receiving more social support and improve their lives through that support (Salovey et al., 1999). Supporting this view, many studies recognize the role of PSS in subjective well-being (Diaz & Bui, 2017; Xu, Xu, Zhao, Ye, Yu, Lai,... & Huang, 2022; Ouyang, Gui, Cai, Yin, Mao, Huang, & Wang, 2021). Overall, students with high emotional intelligence receive more social support and achieve better interpersonal relationships than students with low EI, helping them cope with challenges and preventing negative psychological states.

H2: Emotional intelligence positively affects perceived social support.

H3: Perceived social support positively affects subjective well-being.

H4: Perceived social support mediates the relationship between emotional intelligence and subjective well-being.

Methodology

Participants

After screening and using the data, there were 623 valid responses. Among the 623 participants, 42.4% were male and 57.6% were female. Their ages ranged from 18 to 24 years old. Based on the majors, 26.9% are students in the Economics - Management field, followed by

26.7% who are students in the Social Sciences and Humanities field, and finally 23.5% and 22.9% who are students in the Medicine and Natural Sciences and Engineering fields, respectively. The survey questions were sent to the students through popular platforms such as email within the campus or through personal connections under the online survey form. The contact email list of students was collected with the permission of the student management department of the schools. The responses were collected and managed by the system, which ensured accuracy and reliability. The participants were informed of their rights and privacy features, ensuring confidentiality.

Measures

The study includes three concepts: Emotional Intelligence (EI), Perceived Social Support (PSS) and Subjective Well-being (SWB). The research uses a 7-point Likert scale to measure the impact of EI and PSS on SWB.

Emotional Intelligence (EI) helps to assess human perception of emotional intelligence. The concept inherits from Schutte et al. (1998) with 6 observed variables. Next, the authors use the scale inheriting the concept of Perceived Social Support (PSS) from the study of Multidimensional Scale of Perceived Social Support (MSPSS) by Zimet et al. (1988). Finally, the concept of "Subjective Well-being (SWB) is used to measure the happiness of each individual, while assessing human perception of this theory. SWB is measured by the scale The Satisfaction with Life Scale (SWLS) by Diener et al. (1985) with 5 observed variables.

Statistical Procedures

The statistical data were performed using the PLS-SEM technique with SMARTPLS 4. The analysis process consists of two main stages. Stage one, evaluate the reliability through Cronbach Alpha coefficients. According to Kline (2015), the Cronbach Alpha coefficient needs to

be found and measured, tested before researching deeply into the model. Stage two, test the relationship between the factors after the model has been validated.

Results

Participants

Using a convenience sampling method, the study collected data from 623 students at Vietnamese universities aged 18–24. Among them, 57.6% were female and 42.4% were male. Economics and Administration (26.9%) was the most common major, followed by Social Sciences and Humanities (26.7%), Medicine (23.5%), and Natural Sciences and Engineering (22.9%).

Reliability

The parameters used to assess the reliability of the scale are presented in Tables 1 and 2, including Cronbach's alpha coefficient, composite reliability (CR), and average variance extracted (AVE). Indices CA and CR are greater than 0.7, and AVE exceeds 0.5. Variables with outer loadings below 0.7 were removed, and their removal helped the data meet statistical criteria (Hair, Sarstedt, Hopkins & Kuppelwieser, 2014; Henseler, Ringle & Sarstedt, 2015). Therefore, the data in Table 2 indicate that all factors meet the convergence requirement, and the scale ensures the necessary reliability, with $CR_{min} = 0.874$ and $CA_{min} = 0.819$. The VIF index of the factors ranges from 1.518 to 1.782, all below 5, predicting no multicollinearity among constructs in the research model (Hair, Risher, Sarstedt & Ringle, 2019).

Additionally, discriminant validity—the extent to which different factors are distinct and uncorrelated—is confirmed through the HTMT index, which remains below the acceptable threshold of 0.85 (Henseler, Hubona & Ray, 2016). Table 2 shows that all variables satisfy discriminant validity.

Tabla 1.- Cronbach's Alpha, Composite Reliability (CR), Outer Loading, VIF.

	Cronbach's Alpha (CA)	Composite Reliability (CR)	Outer Loading	VIF
Emotional Intelligence	0.833	0.878	0.717–0.759	1.518–1.655
Perceived Social Support	0.870	0.898	0.707–0.746	1.623–1.782
Subjective Well-Being	0.819	0.874	0.749–0.777	1.559–1.656

Tabla 2 . AVE, Fornell-Larcker, HTMT.

	AVE	1	2	3
1. Emotional Intelligence	0.545	0.738	0.842	0.798
2. Perceived Social Support	0.523	0.718	0.723	0.841
3. Subjective Well-Being	0.580	0.660	0.710	0.762

Note: values represent the square root of AVE (Fornell-Larcker criterion). Below diagonal: correlations between variables. Above diagonal: HTMT ratios.

Testing the Research Model

Hair et al. (2014) emphasized evaluating the structural model using the coefficient of determination (R^2). R^2 measures the explanatory power of the model, with values of 0.75, 0.50, and 0.25 classified as strong, moderate, and weak, respectively (Henseler et al., 2015). For PSS (0.516) and SWB (0.551), the model's explanatory power for students' subjective well-being is moderate.

Predictive power (Q^2) with values of 0, 0.25, and 0.50 corresponds to weak, moderate, and strong predictive levels (Hair, Risher, Sarstedt & Ringle, 2019). As shown in Table 3, the Q^2

for PSS (0.514) indicates strong predictive relevance, and SWB (0.432) reflects relatively significant predictive ability.

To test the SEM hypotheses, bootstrapping with N=5000 samples was used to demonstrate statistical significance for research hypotheses and direct effects. Results are shown in Table 4 and Figure 1.

Tabla 3. *R² and Q² Prediction*

Construct		R ²	Q ²
Perceived Social Support		0.516	0.514
Subjective Well-Being		0.551	0.432

Tabla 4. *Hypothesis Testing Results*

Hypothesis	Relationship	β	t-value	p-value	Result
H1	EI → SWB	0.310	23.423	0.000	Accepted
H2	EI → PSS	0.718	4.350	0.000	Accepted
H3	PSS → SWB	0.487	6.723	0.000	Accepted
H4	EI → PSS → SWB	0.350	6.042	0.000	Accepted

Figure 1. Model Analysis Results



Discussion

Emotional intelligence, perceived social support, and subjective well-being can be further contextualized by considering technology-mediated environments in education at all levels (Ocaña, 2023; Quinga et al., 2022; Vega et al., 2022).

With a p-value of less than 0.05 or a statistical significance level of 95%, all hypotheses are accepted. It can be seen that emotional intelligence (EI) is the strongest factor influencing the formation of perceived social support (PSS) of students ($\beta=0.718$). This indicates that students with higher emotional intelligence are more aware of receiving social support from their friends, family or teachers. Related studies have also demonstrated the close relationship between emotional intelligence and social support perception (Rey et al., 2019; Malinauskas & Malinauskiene, 2020), while studies such as Flores (2023) highlight this emotional recognition frameworks within HCI that contribute to the formation of subjective well-being in technology-mediated contexts. Continuously, Flores (2025), suggests that AI systems can emulate: personality, traits and emotional patterns in which then are used as social support mechanisms.

is development of emotionally responsive digital companions enhances the overall experience as well as closes the bridge that currently exists on the human computer interaction paradigms.

While receiving the support of people around them, students tend to have a positive attitude towards life, leading to an increase in their subjective well-being (SWB) ($\beta=0.487$). Recent studies by Xu et al. (2022) and Ouyang et al. (2021) also confirmed that PSS plays an important role in the subjective well-being of Vietnamese students, Flores and Luna (2024) emphasizes that advances in computational modeling can facilitate a deeper understanding of emotional characteristics and social interactions. This allows the technologies in robotics and day to day use to serve as complementary tools that provide, interact and respond to the emotional state of the user thus mirroring emotional intelligence in the used technology and therefore providing a sense of subjective well-being. These perspectives indicate that the integration of emotionally aware technologies may contribute to strengthening both EI and PSS, thereby supporting students' subjective well-being in an increasingly digitalized environment. Receiving social support encourages students to understand the meaning of life and improves their subjective well-being.

Additionally, the results in Table 4 show that the direct impact of EI on SWB ($\beta = 0.310$) is lower than the indirect impact of EI on SWB through PSS ($\beta = 0.350$). This suggests that, besides improving subjective well-being by developing high emotional intelligence responses, students who have high EI and also receive social support from reliable sources tend to feel happier. Furthermore, people are more willing to help students who exhibit high-EI behaviors compared to those with lower EI (Rey et al., 2019). This result contributes to confirming the findings of Rey et al. (2019).

Conclusion

This study examined and verified the impact of EI, PSS on SWB. We can see that emotional intelligence and social support perception have a significant effect on the subjective well-being of Vietnamese students. The results of the study show that EI and PSS have a strong positive correlation with SWB. This means that students with high EI and good PSS will have higher SWB than students with low EI and poor PSS.

In addition, PSS also plays a mediating role between EI and SWB, meaning that EI will affect SWB through PSS. As in the previous study by Malinauskas and Malinauskiene, perceived social support was considered as a mediator for the longitudinal relationship between EI and subjective well-being of students. This also shows that the higher the emotional intelligence of students, the clearer their perception of social support will be. Due to being aware of receiving support, their level of happiness will also be higher than those who do not have emotional intelligence or have it at a low level.

Therefore, the study suggests that developing EI not only helps individuals to be self-reliant in subjective happiness, but also helps them to utilize social resources to improve their quality of life and perceive the social relationships around them. The implications for these conclusions are essential to the rational of development of support system in other areas such as technology and education.

This study is of great significance in the current context, while many students are facing pressure from studying, working and living. Previous studies have also shown the beneficial effects of improving EI on individual health (Extremera, Sánchez-Álvarez & Rey, 2020; Wang, Zou, Zhang & Hou, 2019). Enhancing emotional intelligence and PSS will help them cope with psychological problems, improve their mental health and create positive experiences.

Students can apply methods to increase their EI index such as regularly self-monitoring their emotions, recognizing the factors that cause those emotions and finding appropriate ways to behave in different situations. In addition to looking at self inner, students also need to practice listening and expressing concern for the emotions of others, respecting and sharing with them. When understanding others emotion and thought, empathy will arise and one can expand their worldview, perceive things more comprehensively.

In parallel with emotional intelligence, social cognitive support should also be emphasized through finding and maintaining positive relationships with family, friends and relatives. This could be expressed through conversations and exchanges that occur for a long-term. For negative or toxic relationships, students should limit the contact or cut negative relationships off in order to keep themselves from being discouraged and exhausted. In addition, students can enhance and restore themselves by participating in social, volunteer or community activities, to expand their network of relationships and have the opportunity to interact, learn and help others.

Overall, self-understanding and understanding others, as well as being grateful and expressing gratitude to social supports are factors that positively affect the subjective well-being of each individual. This is the main argument of this research paper, which aims to explore the relationship among emotional intelligence, perceived social support and subjective well-being of Vietnamese students.

Referencias bibliográficas

- Arslan, A. M., Agatz, N., Kroon, L., & Zuidwijk, R. (2019). Crowdsourced delivery—a dynamic pickup and delivery problem with ad hoc drivers. *Transportation Science*, 53(1), 222-235. Retrieved from: <https://www.jstor.org/stable/27296504>
- Arslan, G. (2018). Social exclusion, social support and psychological wellbeing at school: A study of mediation and moderation effect. *Child indicators research*, 11, 897-918. <https://doi.org/10.1007/s12187-017-9451-1>
- Barrera, M. (1986). Distinctions between social support concepts, measures, and models. *American journal of community psychology*, 14(4), 413-445. Retrieved from: <https://link.springer.com/article/10.1007/bf00922627>
- BlackDeer, A., Patterson Silver Wolf, A., Maguin, E., Beeler-Stinn, S. (2023). Depression and anxiety among college students: Understanding the impact on grade average and differences in gender and ethnicity. *Journal of American college health*, 71(4), 1091-1102. <https://doi.org/10.1080/07448481.2021.1920954>
- Bloom, J. R., Stewart, S. L., Johnston, M., Banks, P., & Fobair, P. (2001). Sources of support and the physical and mental well-being of young women with breast cancer. *Social Science & Medicine*, 53(11), 1513-1524. [https://doi.org/10.1016/S0277-9536\(00\)00440-8](https://doi.org/10.1016/S0277-9536(00)00440-8)
- Casas, F., Bello, A., González, M., & Aligué, M. (2013). Children's subjective well-being measured using a composite index: What impacts Spanish first-year secondary education students' subjective well-being?. *Child Indicators Research*, 6, 433-460. Retrieved from: <https://link.springer.com/article/10.1007/s12187-013-9182-x>
- Casino-García, A. M., García-Pérez, J., & Llinares-Insa, L. I. (2019). Subjective emotional well-being, emotional intelligence, and mood of gifted vs. unidentified students: A relationship model. *International journal of environmental research and public health*, 16(18), 3266.
-

<https://doi.org/10.3390/ijerph16183266>

Datu, J. A. D., & King, R. B. (2018). Subjective well-being is reciprocally associated with academic engagement: A two-wave longitudinal study. *Journal of school psychology, 69*, 100-110.

<https://doi.org/10.1016/j.jsp.2018.05.007>

Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of happiness studies, 9*, 1-11. Retrieved from:

<https://link.springer.com/article/10.1007/s10902-006-9018-1>

Demaray, M. K., & Malecki, C. K. (2002). Critical levels of perceived social support associated with student adjustment. *School Psychology Quarterly, 17*(3), 213–241.

<https://doi.org/10.1521/scpq.17.3.213.20883>

Diaz, T., & Bui, N. H. (2017). Subjective well-being in Mexican and Mexican American women: The role of acculturation, ethnic identity, gender roles, and perceived social support. *Journal of Happiness Studies, 18*, 607-624. Retrieved from:

<https://link.springer.com/article/10.1007/s10902-016-9741-1>

Diener, E. (1984). Subjective well-being. *Psychological bulletin, 95*(3), 542.

Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of personality assessment, 49*(1), 71-75. Retrieved from:

https://www.tandfonline.com/doi/abs/10.1207/s15327752jpa4901_13

Diener, E., Lucas, R. E., & Oishi, S. (2018). Advances and open questions in the science of subjective well-being. *Collabra: Psychology, 4*(1), 15. DOI: 10.1525/collabra.115

Diener, E., Suh, E., Lucas, R., & Smith, H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*(2), 276-302. DOI:10.1037/0033-2909.125.2.276

Drigas, A. S., & Papoutsis, C. (2018). A new layered model on emotional intelligence. *Behavioral*

sciences, 8(5), 45. <https://doi.org/10.3390/bs8050045>

Estrada, M., Monferrer, D., Rodríguez, A., & Moliner, M. Á. (2021). Does emotional intelligence influence academic performance? The role of compassion and engagement in education for sustainable development. *Sustainability*, 13(4), 1721. <https://doi.org/10.3390/su13041721>

Extremera, N., Sánchez-Álvarez, N., & Rey, L. (2020). Pathways between ability emotional intelligence and subjective well-being: Bridging links through cognitive emotion regulation strategies. *Sustainability*, 12(5), 2111. Retrieved from: <https://www.mdpi.com/2071-1050/12/5/2111/pdf>

Fernández-Berrocal, P., & Extremera, N. (2016). Ability emotional intelligence, depression, and well-being. *Emotion review*, 8(4), 311-315.

Flores, H. I. O. (2023). Human computer interaction's insights into the recognition of love: a comprehensive framework. *Tierra Infinita*, 9(1), 228-245. <https://doi.org/10.32645/26028131.1254>

Flores, H. I. O. (2025). Creating an Adaptive Voice and Language Model Capable of Emotional Response and Self-Profiling to Emulate User Personality. *Ciencia Latina Revista Científica Multidisciplinar*, 9(1), 3454-3471. https://doi.org/10.37811/cl_rcm.v9i1.16093

Flores, H. I. O., & Luna, A. (2024). AI for Psychological Profiles: Advances, Challenges, and Future Directions. *Ciencia Latina Revista Científica Multidisciplinar*, 8(3), 10592-10609. https://doi.org/10.37811/cl_rcm.v8i3.12221

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American psychologist*, 56(3), 218. Retrieved from: https://www.prospectivepsych.org/sites/default/files/pictures/Frederickson_Broaden-and-build-2001.pdf

- Gallagher, E. N., & Vella-Brodrick, D. A. (2008). Social support and emotional intelligence as predictors of subjective well-being. *Personality and individual differences*, 44(7), 1551-1561. <https://doi.org/10.1016/j.paid.2008.01.011>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2-24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review*, 26(2), 106-121. DOI:10.1108/EBR-10-2013-0128
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43, 115-135. Retrieved from: <https://link.springer.com/article/10.1007/s11747-014-0403-8>
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial management & data systems*, 116(1), 2-20. <https://doi.org/10.1108/IMDS-09-2015-0382>
- Holt, M. K., & Espelage, D. L. (2005). Social support as a moderator between dating violence victimization and depression/anxiety among African American and Caucasian adolescents. *School Psychology Review*, 34(3), 309-328. Retrieved from: <https://psycnet.apa.org/record/2005-11576-003>
- King, R. B., McInerney, D. M., Ganotice Jr, F. A., & Villarosa, J. B. (2015). Positive affect catalyzes academic engagement: Cross-sectional, longitudinal, and experimental evidence. *Learning and individual differences*, 39, 64-72. <https://doi.org/10.1016/j.lindif.2015.03.005>
-

Kline, R. B. (2015). Principles and practice of structural equation modeling. Guilford Press.

Lewis, A. D., Huebner, E. S., Malone, P. S., & Valois, R. F. (2011). Life satisfaction and student engagement in adolescents. *Journal of Youth and Adolescence*, 40, 249-262. Retrieved from: <https://link.springer.com/article/10.1007/s10964-010-9517-6>

Lin, M., Hirschfeld, G., & Margraf, J. (2019). Brief form of the Perceived Social Support Questionnaire (F-SozU K-6): Validation, norms, and cross-cultural measurement invariance in the USA, Germany, Russia, and China. *Psychological Assessment*, 31(5), 609-621. DOI: 10.1037/pas0000686

Llamas-Díaz, D., Cabello, R., Megías-Robles, A., & Fernández-Berrocal, P. (2022). Systematic review and meta-analysis: The association between emotional intelligence and subjective well-being in adolescents. *Journal of Adolescence*, 94(7), 925-938. <https://doi.org/10.1002/jad.12075>

Ma, C. M., (2019). The relationship between social support and life satisfaction among Chinese and ethnic minority adolescents in Hong Kong: The mediating role of positive youth development. *Child Indicators Research*, 13(2), 659-679. <https://doi.org/10.1007/s12187-019-09638-2>

Maamari, B. E., & Majdalani, J. F. (2019). The effect of highly emotionally intelligent teachers on their students' satisfaction. *International Journal of Educational Management*, 33(1), 179-193. <https://doi.org/10.1108/IJEM-11-2017-0338>

Malinauskas, R., & Malinauskiene, V. (2020). The relationship between emotional intelligence and psychological well-being among male university students: The mediating role of perceived social support and perceived stress. *International journal of environmental research and public health*, 17(5), 1605. Retrieved from: <https://www.mdpi.com/1660-4601/17/5/1605>

- Martins, A., Ramalho, N., & Morin, E. (2010). A comprehensive meta-analysis of the relationship between emotional intelligence and health. *Personality and individual differences*, 49(6), 554-564. <https://doi.org/10.1016/j.paid.2010.05.029>
- Mayer, J. D., Caruso, D. R., & Salovey, P. (2016). The ability model of emotional intelligence: Principles and updates. *Emotion Review*, 8(4), 290–300. <https://doi.org/10.1177/1754073916639667>
- Ocaña, M., Luna, A., Guallichico, G., & Bautista, C. (2023). Aplicaciones móviles en el desarrollo del lenguaje: Un enfoque comparativo entre padres y educadores. *Revista Alpha & Omega*, 1(1), 10. <https://doi.org/10.24133/ALPHAOMEGA.VOL01.01.2023.ART01>
- Ouyang, M., Gui, D., Cai, X., Yin, Y., Mao, X., Huang, S., Wang, P. (2021). Stressful life events and subjective well-being in vocational school female adolescents: the mediating role of depression and the moderating role of perceived social support. *Frontiers in psychology*, 11, 603511. <https://doi.org/10.3389/fpsyg.2020.603511>
- Palmer, B., Donaldson, C., & Stough, C. (2002). Emotional intelligence and life satisfaction. *Personality and individual differences*, 33(7), 1091-1100. DOI:10.1016/j.paid.2005.03.012
- Petrides, K. V. (2006). Deriving factor scores from the TEIQue-SF. Webnote #2. Retrieved from: <http://www.ioe.ac.uk/schools/phd/kpetrides/teique1.htm>
- Petrides, K. V., & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality*, 15, 425–448. <https://doi.org/10.1002/per.416>
- Petrides, K. V., Hudry, K., Michalaria, G., Swami, V., & Sevdalis, N. (2011). A comparison of the trait emotional intelligence profiles of individuals with and without Asperger syndrome. *Autism*, 15(6), 671-682. <https://doi.org/10.1177/1362361310397217>
-

- Petrides, K. V., Sangareau, Y., Furnham, A., & Frederickson, N. (2006). Trait emotional intelligence and children's peer relations at school. *Social Development*, 15(3), 537-547. Retrieved from: <https://eric.ed.gov/?id=EJ942194#:~:text=Trait%20emotional%20intelligence%20%28%22trait%20EI%22%20or%20%22trait%20emotional,trait%20EI%20in%20children%27s%20peer%20relations%20at%20school.>
- Quinga, Y., Pilataxi, N., Carvajal, V., Ocaña, M. (2022). Virtual Activities to Strengthen Basic Math Skills in Children. In: Botto-Tobar, M., Cruz, H., Díaz Cadena, A., Durakovic, B. (eds) *Emerging Research in Intelligent Systems. CIT 2021. Lecture Notes in Networks and Systems*, https://doi.org/10.1007/978-3-030-96046-9_13
- Rey, L., Extremera, N., & Sánchez-Álvarez, N. (2019). Clarifying the links between perceived emotional intelligence and well-being in older people: Pathways through perceived social support from family and friends. *Applied Research in Quality of Life*, 14, 221-235. <https://doi.org/10.1007/s11482-017-9588-6>
- Rosenfeld, J., Porter, M., & Parkinson, E. (2000). Habitat factors affecting the abundance and distribution of juvenile cutthroat trout (*Oncorhynchus clarki*) and coho salmon (*Oncorhynchus kisutch*). *Canadian Journal of Fisheries and Aquatic Sciences*, 57(4), 766-774. <https://doi.org/10.1139/f00-010>
- Rosenfeld, L. B., Richman, J. M., & Bowen, G. L. (2000). Social support networks and school outcomes: The centrality of the teacher. *Child and adolescent social work journal*, 17, 205-226. <https://doi.org/10.1023/A:1007535930286>
- Ruiz-Aranda, D., Extremera, N., & Pineda-Galan, C. (2014). Emotional intelligence, life satisfaction and subjective happiness in female student health professionals: the mediating effect of perceived stress. *Journal of psychiatric and mental health nursing*, 21(2), 106-113.
-

DOI: 10.1111/jpm.12052

Salovey, P., Bedell, B. T., Detweiler, J. B., & Mayer, J. D. (1999). Coping intelligently. Coping: The psychology of what works, 141-164.

Sánchez-Álvarez, N., Extremera, N., & Fernández-Berrocal, P. (2016). The relation between emotional intelligence and subjective well-being: A meta-analytic investigation. *The Journal of Positive Psychology*, 11(3), 276-285. DOI:10.1080/17439760.2015.1058968

Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and individual differences*, 25(2), 167-177. Retrieved from: [https://doi.org/10.1016/S0191-8869\(98\)00001-4](https://doi.org/10.1016/S0191-8869(98)00001-4)

Schwarzer, R., Knoll, N., & Rieckmann, N. (2004). Social support. In A. Kaptein & J. Weinman (Eds.), *Health psychology* (pp. 158–182). Oxford, England: Blackwell. Retrieved from: <https://psycnet.apa.org/record/2004-21821-007>

Seligman, M. E. (2002). Positive psychology, positive prevention, and positive therapy. *Handbook of positive psychology*, 2(2002), 3-12. Retrieved from: https://public.websites.umich.edu/~prestos/Downloads/DC/10-7_Seligman2002.pdf

Tejada-Gallardo, C., Blasco-Belled, A., Torrelles-Nadal, C., & Alsinet, C. (2022). How does emotional intelligence predict happiness, optimism, and pessimism in adolescence? Investigating the relationship from the bifactor model. *Current Psychology*, 41(8), 5470-5480. Retrieved from: <https://link.springer.com/article/10.1007/s12144-020-01061-z>

Tian, L., Liu, B., Huang, S., & Huebner, E. S. (2013). Perceived social support and school well-being among Chinese early and middle adolescents: The mediational role of self-esteem. *Social indicators research*, 113, 991-1008. <https://doi.org/10.1007/s11205-012-0123-8>

- Valenti, G. D., Faraci, P., & Magnano, P. (2021). Emotional intelligence and social support: two key factors in preventing occupational stress during COVID-19. *International Journal of Environmental Research and Public Health*, 18(13), 6918. Retrieved from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8296921/>
- Vega, B., Velasco, M., Ocaña, M., Rebeca, M. (2022). Scratchjr Visual Programming Language for Early Math Skills Development in 4–7 years Old Children. In: Botto Tobar, M., Cruz, H., Díaz Cadena, A., Durakovic, B. (eds) *Emerging Research in Intelligent Systems. CIT 2021. Lecture Notes in Networks and Systems*, vol 406. Springer, Cham. https://doi.org/10.1007/978-3-030-96046-9_19
- Wang, Y., & Kong, F. (2014). The role of emotional intelligence in the impact of mindfulness on life satisfaction and mental distress. *Social indicators research*, 116, 843-852. Retrieved from: <https://link.springer.com/article/10.1007/s11205-013-0327-6>
- Wang, Z., Kouvonen, A., Satka, M., & Julkunen, I. (2019). Parental social support and adolescent well-being: a cross-sectional study in China. *Child Indicators Research*, 12, 299-317. <https://doi.org/10.1007/s12187-018-9547-2>
- Wang, M., Zou, H., Zhang, W., & Hou, K. (2019). Emotional intelligence and subjective well-being in Chinese university students: the role of humor styles. *Journal of Happiness Studies*, 20, 1163-1178. Retrieved from: <https://link.springer.com/article/10.1007/s10902-018-9982-2>
- Xu, X., Pang, W., & Xia, M. (2021). Are emotionally intelligent people happier? A meta-analysis of the relationship between emotional intelligence and subjective well-being using Chinese samples. *Asian Journal of Social Psychology*, 24(4), 477-498. <https://doi.org/10.1111/ajsp.12445>
- Xu, X., Xu, Y., Zhao, J., Ye, P., Yu, M., Lai, Y., Huang, Q. (2022). Good Personality and Subjective Well-Being: Presence of Meaning in Life and Perceived Social Support as Mediators.
-

International Journal of Environmental Research and Public Health, 19(21), 14028.

DOI:10.3390/ijerph192114028

Zeidner, M., Matthews, G., & Roberts, R. D. (2012). The emotional intelligence, health, and well-being nexus: What have we learned and what have we missed?. *Applied Psychology: Health and Well-Being*, 4(1), 1-30. DOI: 10.1111/j.1758-0854.2011.01062.x

Zhou, L. H., Ntoumanis, N., & Thøgersen-Ntoumani, C. (2019). Effects of perceived autonomy support from social agents on motivation and engagement of Chinese primary school students: Psychological need satisfaction as mediator. *Contemporary Educational Psychology*, 58, 323–330. <https://doi.org/10.1016/j.cedpsych.2019.05.001>

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of personality assessment*, 52(1), 30-41. https://doi.org/10.1207/s15327752jpa5201_2
