




Article

Social Networks, Emotions, and Education: Design and Validation of e-COM, a Scale of Socio-Emotional Interaction Competencies among Adolescents

Ana Cebollero-Salinas , Jacobo Cano-Escoriaza  and Santos Orejudo * 

Department of Psychology and Sociology, University of Zaragoza, 50009 Zaragoza, Spain; anacebollero@unizar.es (A.C.-S.); jcano@unizar.es (J.C.-E.)

* Correspondence: sorejudo@unizar.es

Abstract: Socio-emotional competencies play an essential role in personal development as they are associated with highly prosocial behavior and low aggressiveness. An individual who is online manages his/her emotions in a specific manner. Thus, it is highly relevant to analyze and evaluate online socio-emotional competencies. Until now, however, no instruments had been defined or developed for that purpose. This study's objective was thus to design and validate a questionnaire for the evaluation of socio-emotional competencies in virtual contexts, and to analyze eventual differences according to gender and academic year. Using the model developed by Bisquerra and Pérez (2007) as a theoretical framework, the competencies posited therein were transferred to an online environment. The questionnaire was filled out by 888 adolescents ages 12 to 17 (48% males, $M = 13.83$ years old, $DT = 1.27$), all residents of Aragón, Spain. On the basis of their responses, structure analysis, validation, and reliability were carried out. Confirmatory factor analysis (CFA) yielded a five-dimensional structure with good fit and internal consistency. The five resulting dimensions evaluate (1) emotional e-conscience, (2) emotional e-autonomy, (3) emotional e-regulation, (4) e-self-control of impulsiveness, and (5) social e-competency. Differences among genders were observed in the categories of emotional e-conscience and social e-competency. Furthermore, the results of this study show that online emotional expression does not imply emotional competency. These results represent an advance in the field of emotional education.

Keywords: emotional competencies; social competencies; emotional intelligence; emotions online; social media; secondary education; confirmatory factor analysis; gender



Citation: Cebollero-Salinas, A.; Cano-Escoriaza, J.; Orejudo, S. Social Networks, Emotions, and Education: Design and Validation of e-COM, a Scale of Socio-Emotional Interaction Competencies among Adolescents. *Sustainability* **2022**, *14*, 2566. <https://doi.org/10.3390/su14052566>

Academic Editors: Arantazu Rodríguez-Fernández, Arantza Fernández-Zabala and Eider Goñi-Palacios

Received: 11 January 2022

Accepted: 18 February 2022

Published: 23 February 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

1.1. Socio-Emotional Competencies

Experts widely agree that the emotional dimension plays a fundamental role in social development and learning [1–3]. Emotional competencies have been the object of intense study since Salovey and Mayer, 1997 [4] defined emotional intelligence as the ability to perceive, express, access, and regulate emotions. Since then, a number of socio-emotional education programs have been adopted with a special emphasis on adolescence, which is a key stage in the formation of an individual's personality and identity [5].

Understanding socio-emotional competencies requires the analysis of different models of emotional intelligence. Some of these address intra-personal aspects such as recognizing, understanding, and dealing with emotions [4]; others also include the social dimension of emotion and its interpersonal perspective, which integrates aspects such as empathy and social abilities [6], competencies for dealing with life challenges [7,8], and managing interpersonal relationships and learning to take adequate decisions [9]. Experts agree, however, that the development of emotional competencies is the best path to improve emotional intelligence [10,11]. Emotional competencies require the acquisition of knowledge, abilities, and attitudes that enable the individual to understand

and deal with emotions in him/herself and in others, to display empathy, to initiate and maintain desirable interpersonal relationships, and to learn to take responsible decisions [9].

A review of the relevant literature shows that socio-emotional competencies play a key role in a number of areas including academic performance [12] and a positive atmosphere in class [13]. A series of meta-analyses and investigations have found that a high degree of socio-emotional competency correlates with low levels of aggressive, antisocial behavior [14] such as bullying [15]. Moreover, emotional intelligence is associated with a lower degree of alcohol and/or tobacco consumption [16]; lower degrees of substance abuse [17], anxiety, and depression; improved coping strategies [18] (Resurrección et al., 2014); and greater happiness [19]. All of these results suggest that socio-emotional competencies play a crucial role in personal development.

1.2. Socio-Emotional Competencies and the Internet

The Internet has become one of the major tools of learning, leisure, and social lives. Although there is a general awareness of the essential role played by the emotional dimension in learning to relate effectively with others [2], and it is widely recognized that the virtual environment is one of the most important contexts for socialization among adolescents [20], studies devoted to socio-emotional competencies tend to focus mainly on face-to-face situations. When studies incorporate the online environment, they do not take all of its particular features into account. A number of studies have addressed socio-emotional competencies in relation to cyberbullying, such as [21], who analyzed the emotional impact of cyberbullying according to role and context, and [22], who found that emotional clarity and the reparation of cybervictims correlate negatively with cybervictimization. Garaigordobil [23] has shown that cyberaggressors have a low degree of emotional self-regulation, and that victimized cyberaggressors display high levels of popularity goals and a low degree of social acceptance. A recent study has shown that a high level of socio-emotional competencies in face-to-face interaction correlates negatively with cybervictimization and cyberaggression [24]. Certain authors who have studied gender differences in this field have found that low levels of emotional intelligence are positively associated with cybervictimization, particularly in girls; [25] moreover, Yudes et al. [26] showed the important role played by regulatory abilities in predicting cyberaggressive behaviors, mainly in girls, and in predicting interpersonal perception in boys.

Another large group of studies has focused on the relation between face-to-face socio-emotional competencies and the use and abuse of technology. Higher levels of interpersonal perception and lower levels of emotional facilitation and regulation predict the profile of a problematic Internet user [27]. Some studies have found that a high level of emotional competency is related with a lesser degree of technology abuse [28–30] and with a decrease in nomophobia [20]. A broad meta-analysis of an adolescent population studied personal and social factors of Internet addiction, and concluded that social abilities are one of the protective factors [31]. It has also been suggested that people with a low degree of social competency in the area of face-to-face interaction tend to find themselves at greater risk of ICT abuse, since they prefer to relate with other human beings in an online environment [32].

Nevertheless, there are very few studies that specifically analyze emotions that arise during online interaction. An emergent group of research papers confirms that people do indeed express and make use of emotions online [33–35]. Thus, for instance, [36] show that emotional agitation on the Web promotes the exchange of virtual information. Zych et al. [37] confirm that adolescents perceive and deal with emotions in virtual communication. Moreover, Nasaescu et al. [29] demonstrate that a high level of face-to-face socio-emotional competencies is positively associated with a greater degree of online emotional content, and they point out that the latter represents a risk factor that can lead to technology abuse and to cyberbullying [24]. Further authors confirm that the

use of emotional content online predicts problematic use of social networks, and that emotional regulation is key [38]. These studies suggest that managing one's emotional and social life plays a key role in web interaction; however, the socio-emotional competencies required to interact satisfactorily online have neither been defined nor evaluated to date.

Online socio-emotional competencies are equivalent to face-to-face socio-emotional competencies, but they are deployed in a virtual environment: therefore, in this study, they are designated as socio-emotional e-competencies. These two phenomena need to be addressed in a different manner, since the contexts within which they operate have different intrinsic characteristics. First, in a virtual context, online messages are stored and can be subsequently reproduced, thereby giving rise to emotions that are more intense. Second, in a virtual context, the individual communicates via a screen, thereby limiting the use of prosodic, paralinguistic, and extralinguistic elements habitually employed in face-to-face communication. It thus becomes more difficult to transmit the message, recognize its intention, and interpret the emotional state of one's interlocutor, despite the eventual use of emoticons [39]. This increases the possibility of erroneous interpretations, and can even lead to instances of cyberaggression [40]. Third, digital social life has its own special characteristics: it takes place at a more rapid speed, social groups tend to have a greater number of members, and relationships can be more anonymous, even provoking a sensation of disorientation and estrangement [41] or, on the other hand, of disinhibition [42]. Fourth, the accessibility to online information and communication is immediate; gratification can be instant. This situation increases the possibility of developing impulsive behavior. Finally, social networks foster a continual process of searching for recognition, negotiating one's status, and perceiving the degree of integration into the group according to the number of followers, comments, likes, etc. [43]. Virtual social comparison can be intense, and can exert a considerable influence on self-image and self-assurance, and on motivation and goal-setting. This all suggests that socio-emotional e-competencies need to be studied with tools and approaches specifically designed for this purpose.

Internet users do not only express and perceive their feelings: the way they specifically do so in an online environment tends to configure their personality [41]. Knowledge regarding socio-emotional competencies can thus play a key role in social development, and can have major implications in the areas of education, health, and well-being.

1.3. The Need for a Socio-Emotional e-Competencies Scale (e-COM)

Many tools already exist for the evaluation of socio-emotional competencies in face-to-face contexts—EQ-I [10]; SELS [44] (Coryn et al., 2009); TMSS [45]; WLEIS [46], etc.—but very few existing tools evaluate such aspects in online environments. TMMS-24 was recently adapted to interactive environments (EIEI) [39] in order to evaluate attention, clarity, and emotional reparation. Ref. [37] elaborated the “e-motions” questionnaire, designed to quantify emotional online content, e.g., to evaluate whether emotions are expressed, perceived, used, and managed online. Yet, there is still no tool that integrates social and emotional competencies implemented in online interaction. Our study's objective was thus to create and validate a questionnaire designed to evaluate such competencies (e.g., socio-emotional e-competencies), and to ascertain whether they differ among adolescents in terms of gender and schoolyear.

The number of studies that deal with socio-emotional competencies and take age and gender into account is scarce, since such competencies are rarely approached as an integral construct. Certain studies either analyze emotional competencies exclusively, or only social competencies, and are thus not conclusive [47–55]. Thus, age and gender differences in this domain still need to be described.

2. Method

2.1. Participants

The participants were 888 adolescents enrolled in secondary education, which, in Spain, is compulsory between the ages 12 and 16. The mean age in our sample was 13.83 (DT = 1.27), with proportional representation in each schoolyear as follows: 1st schoolyear: 26.5%; 2nd schoolyear: 26.0%; 3rd schoolyear: 23.2%; 4th schoolyear: 24.3%. In terms of gender, 56.3 % were female and 44.7 % were male. There were no differences in mean age between boys and girls ($F_{1,813} = 1.595, p = 0.207$), neither were there differences in terms of their distribution per schoolyear ($\chi^2 = 2.154, p = 0.541$). A non-probabilistic incidental sampling was carried out, selecting participants in terms of this research team's access to high schools, where certain teachers had shown interest in improving their students' technological competencies.

2.2. Variables and Tools

2.2.1. The Socio-Emotional e-Competencies Questionnaire (e-COM)

The Socio-Emotional e-Competencies Questionnaire was specifically designed for this study by three members of this study's research team who are experts in the field of emotions and cyberbehavior.

Item construction was based on a theoretical frame of reference that reviewed the main propositions in the literature regarding socio-emotional competencies [4,6,9–11]. The frame of reference comes from [56], who elaborated their own model of five competencies: emotional conscience, emotional self-regulation, emotional autonomy, emotional competency, and abilities to cope with life. From that 5-competency model, four dimensions were adopted, since our study's research team considered that the group of "abilities to cope with life" could not be pertinently applied in a virtual environment.

This model was adapted to ensure that the items would reflect characteristics specifically associated with an online interaction environment [33–43]. It initially featured 57 items on a 10-point Likert scale from 1 (entirely disagree) to 10 (entirely agree), and was validated by four experts in this area of study. It was first administered to a pilot sample of 160 students aged 12 to 17 (62.5% female and 37.5% male, mean age = 12.37; SD = 1.01). After a selective procedure, several items were excluded and the questionnaire was reduced to 40 items. Several further items were revised and reworded. The revised questionnaire was administered to a final sample of 888 adolescents (mean age = 13.83; DT = 1.27), of which 56.3% were female and 44.7% were male.

The proposed questionnaire is divided into five sections: emotional e-conscience (7 items) refers to an individual's capacity to identify and understand his/her own emotions in a virtual context, for example: "When I am on social networks (I read comments, I watch videos, people's profiles, etc.), I can name what I feel"; emotional e-regulation (9 items) assembles items associated with emotional control in view of the limited amount of information available in the online environment, since the transmitters and receivers of information are not physically present, thus increasing the ease of emotional disinhibition online, for instance: "Before I make a joke on social networks, I am capable of imagining how that person is going to feel", and: "I control the emotions I express via the Internet". E-self-control of impulsiveness (6 items) focuses on aspects of self-regulation that are necessarily required to react reflectively to the ease of immediate communication on the Internet: "When something shocks me, I can't avoid commenting on it on social networks", and to the ease of obtaining instant information: "I can't avoid clicking on attractive links that present themselves". E-emotional autonomy (10 items) refers not only to the competency of feeling emotionally adept in virtual social relations regardless of others' opinions, but also to having self-esteem without depending on the online success of other contacts and the success of one's own comments, photos, etc. For example: "I feel socially inadequate if others receive a greater number of comments on social networks than I do"; "If I don't receive responses from others on social networks, I feel as if they don't see me as part of the group". E-social competency (8 items) enquires about the subject of

good relations and pro-social behavior in the virtual environment, for example: “On social networks (Instagram, WhatsApp, e-mail, etc.) I pay heed to the needs of others”, and “On social networks, I tend to calm down my contacts when they get angry”.

2.2.2. The e-Motions Questionnaire

The e-motions Questionnaire [37] evaluates emotional content that is perceived, expressed, used, and managed in online communication. This questionnaire was applied to test the validity of the current tool presented in this study. The *e-motions Questionnaire* comprises 21 elements to which participants respond on a 5-point Likert scale ranging from 1 (entirely disagree) to 5 (entirely agree). The questionnaire has four subscales: emotional expression (4 items, $\alpha = 0.84$; for instance, “I express my emotions through social media such as Facebook or Instagram”); emotional perception (3 items, $\alpha = 0.75$; for instance, “My contacts let me know through Facebook or Instagram if they are happy or sad”); facilitation of emotions (6 items, $\alpha = 0.91$; for instance, “I express my emotions through Facebook or Instagram to overcome my difficulties”); and comprehending and managing emotions (8 items, $\alpha = 0.87$; for instance: “When I look at my contacts’ profiles I understand what emotions they are feeling”). In our study, the questionnaire achieved a Cronbach’s alpha of 0.887.

2.3. Procedure

First, the agreement of the administrative team was obtained from each of the educational centers. This study’s research team sent them a brief document explaining the study’s objectives and scope. Informed consent was obtained from the parents. Members of this study’s research team explained its objective to the students, ensured them that their answers would remain anonymous, and that their participation was on a voluntary basis. The questionnaire was completed in a 30 min. period during class hours in the presence of a member of our research team.

With this procedure, data of 888 participants were gathered. One month later, a subsample of 246 students completed the same questionnaire to provide us with data about the stability of responses across time.

2.4. Data Analysis

On the responses from the definitive sample, an initial item analysis was conducted using the mean, standard deviation values, skewness, and kurtosis values. Internal consistency with Cronbach’s alpha was also measured, in addition to the Corrected Item-Total Correlation, an option that is recommended prior to other levels of analysis [57].

To obtain the items’ factorial structure, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were carried out on two independent, randomly generated subsamples. Although current intermediate alternatives to both options exist (such as ESEM factor analysis), the large size of the sample featured in this study allowed this study’s research team to divide it randomly and apply the traditional validation process [57,58]. This first stage of analysis was carried out with the SPSS program (v. 26), applying Promax rotation to achieve Maximum Likelihood Estimation, which is appropriate for Likert-type scales of at least 7 points, as here, and featuring normally distributed items. To establish the Number of Factors to Retain, the Kaiser criterion and parallel analysis were run on SPSS [59].

To run CFA on the second subsample, the Mplus program with its Robust Maximum Likelihood estimation (MLR) was used. Models were adjusted with the indices resulting from MLR, chi-square and its normal distribution ($\chi^2/G.L.$) (an acceptable adjustment if values lie between 2 and 3, with limits up to 5), Comparative Fit Index (CFI), Tucker Lewis Index (TLI: values acceptable if greater than 0.90 and optimal at 0.95), and the Root Mean Square Error of Approximation (RMSEA), (≤ 0.08 is adequate; ≤ 0.05 is optimal), as suggested by [58,60].

Test-retest reliability (Pearson correlation) was also calculated. One month after the initial test, a group of 246 participants took the same test under the same conditions. Validity was confirmed through bivariate Pearson correlation analysis comparing the socio-emotional e-competencies questionnaire with the e-motions questionnaire. Variance analysis was conducted on the final scale values as a function of gender and academic year. In cases where variances were not equal, the Brown–Forsythe (F^*) test was applied; for post-hoc comparison, the Games–Howell post-hoc test was used.

3. Results

From an initial 40-item scale as the point of departure, 25 items were ultimately retained. Initial analysis of the 40 items showed they had high average values lying between 4.88 and 7.69, while the standard deviation of all items was greater than 1. The item-total correlations ranged from moderate to strong, except on Items 20 and 21, for which they were not significant, and on Item 23, for which the item-total correlation was close to 0. Skewness and kurtosis values suggested that the sample was normal in all cases.

The Kaiser–Meyer–Olkin test showed that the data were adequate for EFA (KMO = 0.926). Parallel analysis established the adequate number of factors in that subsample as five, thus reproducing a coherent factorial structure with the typical characteristics of socio-emotional competencies in a virtual environment (Table 1). The Kaiser criterion established the Number of Factors to Retain at a minimum of seven; the two last factors, however, were unsuitable, since they grouped factors already included under other categories; moreover, either they had low factorial weight, or they were items without coherent content. For that reason, a five-factor structure was maintained, grouping a total of 36 items according to their content, with factorial weights over 0.60 in most cases. Items 20, 24, and 25 had a lower commonality (<0.30) than the others; moreover, as previously mentioned, they did not saturate in any of the five factors. They were therefore eliminated prior to a second EFA, the results of which are displayed below. Item 23 had a commonality over 0.30, but its factorial weight of 0.442 was among the lowest; thus, it was not eliminated for the second phase.

In terms of content, one of the factors contains seven items related to emotional conscience, i.e., identification and comprehension of one's emotions online. Factor 2 groups eight items related to impulsive reactions due to enlarged communication possibilities and instant access to information. Factor 3 groups six items related to the necessary self-regulation that is required to consider that there is a real person behind the screen. Factor 4 groups six items related to social competency (items that ask questions about help, support, paying attention to the needs of others, and good relations). Factor 5 groups ten items associated with emotional independence, i.e., the competency of being able to feel satisfied with oneself without depending on online success and the judgment of others. Three other items do not saturate in any of these five factors.

This five-factor structure of 36 items—extracted from the EFA and concurrent with the theoretical framework—was thus tested on the second subsample with a CFA. The result showed good fit ($\chi^2 = 1271.410$, g.l. = 619, $p < 0.001$; $\chi^2/\text{g.l.} = 2.053$; CFI = 0.905, TLI = 0.898, RMSEA = 0.047), but had certain possibilities for improvement. All items had significant regression weights, some of which were lower than 0.60. A modified version of the CFA was thus proposed, seeking to reduce the number of items per factor to a maximum of five, selecting those items that had regression weights superior to 0.60; when there were several, those that had content more representative of the factor were sought. The resulting scale thus comprised 25 items. The results from the CFA of this new version of the scale displayed an adequate fit in Subsample 2 ($\chi^2 = 519.441$, g.l. = 265, $p < 0.001$; $\chi^2/\text{g.l.} = 1.960$; CFI = 0.940, TLI = 0.932, RMSEA = 0.043), and in the entire sample ($\chi^2 = 624.572$, g.l. = 265, $p < 0.001$; $\chi^2/\text{g.l.} = 2.357$; CFI = 0.954, TLI = 0.948, RMSEA = 0.039). The final structure of the scale is displayed in Table 2.

Table 1. Initial 40-item version. Mean, standard deviation and factorial weights of the EFA in Subsample 1.

Item	M	SD	F1	F2	F3	F4	F5
1	6.90	2.60	0.663				
2	6.19	2.80	0.624				
3	5.92	2.89	0.483				
4	6.99	2.50	0.751				
5	6.45	2.57	0.686				
6	7.04	2.49	0.772				
7	6.556	2.30	0.519				
8	7.69	2.40			0.809		
9	7.15	2.23			0.581		
10	6.51	2.64			0.696		
11	7.34	2.36			0.712		
12	5.67	2.93		0.610			
13	6.82	2.93		0.595			
14	6.11	2.78		0.712			
15	6.16	2.80		0.742			
16	7.11	2.89		0.759			
17	5.79	2.97		0.580			
18	6.89	2.55			0.598		
19	7.00	2.47			0.599		
20	6.44	2.53					
21	7.34	2.17			0.675		
22	7.42	2.36			0.627		
23	6.45	2.89					0.442
24	5.15	2.90					
25	5.77	2.93					
26	5.84	2.45					0.638
27	6.52	2.31					0.750
28	6.87	2.44					0.920
29	6.02	2.53					0.796
30	6.48	2.52					0.654
31	4.88	3.06				0.593	
32	5.96	3.21				0.730	
33	6.03	2.98				0.743	
34	7.30	2.77				0.821	
35	7.37	2.73				0.858	
36	6.99	2.71				0.813	
37	6.70	2.87				0.757	
38	7.08	2.85				0.881	
39	7.05	2.70				0.683	
40	6.48	2.53				0.557	

The five resulting subscales were thus composed of five items each, with good psychometric values and internal consistency indicators superior to 0.80, similar rank correlation coefficients (ρ ranging from 0.798 to 0.913), and average variance extracted (AVE between 0.445 and 0.678).

More specifically, the five proposed scales are the following: emotional e-conscience (the competency to identify and comprehend one's own emotions in a virtual context, with the indicators $\alpha = 0.801$, $\rho = 0.651$, AVE = 0.732); emotional e-regulation (the capacity to generate responses adapted to the context by identifying emotional states generated by the specific characteristics of communication on the Internet, with the indicators $\alpha = 0.801$, $\rho = 0.828$, AVE = 0.492); of impulsiveness (the competency that supposes being able to exert the necessary e-self-control control to inhibit impulsive responses in the face of stimuli, social demands, and information appearing on the Internet, with the indicators $\alpha = 0.838$, $\rho = 0.798$, AVE = 0.495); *emotional e-independence* (the capacity of feeling emotionally proficient in virtual social relations regardless of the opinion of others, and of valuing oneself positively without depending on one's own online success or that of other contacts, with the indicators $\alpha = 0.911$, $\rho = 0.913$, AVE = 0.678); and *social e-competency* (the capacity

to establish good relations in a virtual context and to develop pro-social behavior, with the indicators $\alpha = 0.858$, $\rho = 0.840$, $AVE = 0.514$).

Table 2. Confirmatory factor analysis of the results of the definitive scale from the total sample.

Item	Weight	
Emotional e-Conscience		
1	0.631	When I am on social media, I notice if I am angry or happy (I play, I communicate . . .)
2	0.672	When I am on social media (I read comments, I look at profiles, I watch videos) I can put a name on what I feel
3	0.751	When I entertain myself on the Internet (playing videogames, watching videos, etc.), I identify my emotions
4	0.709	I usually know how to distinguish why I have certain feelings on social media
5	0.739	I really understand what I feel when I play videogames online, watch videos, read comments, etc.
Emotional e-Regulation		
6	0.775	Before making a joke [about someone] on social media (on video or audio) I am capable of imagining how that person is going to feel
7	0.738	I have good control of my own emotions on social media.
8	0.688	I control the emotions I express through the Internet.
9	0.650	Even if something bothers me on social media, I am capable of responding with good manners.
10	0.732	Before I say anything on social media, I am capable of imagining the consequences.
e-Self-control of impulsiveness		
11	0.586	If a rumor is being commented in a WhatsApp group or on another social network, I find it difficult not to make a comment too.
12	0.613	On the Internet, I can't stop clicking on the attractive links I see.
13	0.736	On social media, I can't avoid commenting on the jokes they write on WhatsApp, etc.
14	0.735	When something surprises me, I can't avoid commenting it on social media.
15	0.681	On social media, I can't avoid posting comments about what has happened.
Emotional e-Independence		
16	0.839	When I see the number of comments other friends receive on social networks, it affects me.
17	0.863	I feel socially awkward if others get lots of comments on social networks
18	0.825	I feel unsuccessful if my contacts discover something negative about me on social media
19	0.720	If people don't answer on social media, I feel as if they don't consider me part of the group
20	0.862	I feel unsuccessful when my photos/videos don't get comments.
Social e-Competency		
21	0.617	On social networks (Instagram, WhatsApp, e-mail, etc.) I pay attention to the needs of others
22	0.751	I tend to know how to help people who need help on social networks (Instagram, WhatsApp, e-mail, etc.)
23	0.842	I offer help on social networks when people need it
24	0.768	I tend to help on problems that arise on social networks
25	0.696	I tend to calm my contacts down when they get angry on social networks.

Most correlations between dimensions of the scale were significant. Particularly high correlations can be observed between emotional e-independence and the two dimensions of e-self-control of impulsiveness (0.560) and emotional e-regulation (0.280), between emotional e-conscience and emotional e-regulation (0.419), between e-self-control of impulsiveness and emotional e-regulation (0.255), and, finally, a high correlation between

social e-competency and the two dimensions of emotional e-conscience (0.432) and emotional e-regulation (0.375). Significant, yet low, negative correlations were found between e-regulation of impulsiveness and the two categories of emotional e-conscience (−0.118) and social e-competency (−0.202).

Regarding stability over time, the five subscales yielded acceptable indices, with high correlations between the two points in time. The indices are as follows: for the total scale $r = 0.851, p < 0.001$; for emotional e-conscience $r = 0.765, p < 0.001$; for emotional e-regulation $r = 0.765, p < 0.001$; for self-control of impulsiveness $r = 0.986, p < 0.001$; for emotional e-independence $r = 0.937, p < 0.001$; and for social e-competency $r = 0.652, p < 0.001$.

The results of the comparison in terms of gender are featured in Table 3. Girls have a higher score in social e-competency. Boys, however, attain a higher average score in emotional e-conscience, i.e., they identify and comprehend their own emotions. The size of the effect is moderate along both dimensions.

Table 3. ANOVA with comparison in terms of gender.

		N	Mean	SD	F	p	η^2																																																								
Emotional e-conscience	Male	414	41.78	11.57	16.063	0.000	0.018																																																								
	Female	474	38.71	11.23				Emotional e-regulation	Male	414	35.89	9.50	2.965	0.085	0.003	Female	474	36.96	9.13	E-self-control impulsiveness	Male	414	31.46	10.92	1.122	0.290	0.001	Female	474	32.23	10.48	Emotional e-independence	Male	414	42.21	14.18	0.356	0.551	0.000	Female	474	42.78	14.05	Social e-competency	Male	414	30.46	10.29	13.05*	0.000	0.015	Female	474	32.83	9.06	Total of e-COM scale	Male	414	183.51	34.20	0.609*	0.435	0.000
Emotional e-regulation	Male	414	35.89	9.50	2.965	0.085	0.003																																																								
	Female	474	36.96	9.13				E-self-control impulsiveness	Male	414	31.46	10.92	1.122	0.290	0.001	Female	474	32.23	10.48	Emotional e-independence	Male	414	42.21	14.18	0.356	0.551	0.000	Female	474	42.78	14.05	Social e-competency	Male	414	30.46	10.29	13.05*	0.000	0.015	Female	474	32.83	9.06	Total of e-COM scale	Male	414	183.51	34.20	0.609*	0.435	0.000	Female	474	181.81	34.20								
E-self-control impulsiveness	Male	414	31.46	10.92	1.122	0.290	0.001																																																								
	Female	474	32.23	10.48				Emotional e-independence	Male	414	42.21	14.18	0.356	0.551	0.000	Female	474	42.78	14.05	Social e-competency	Male	414	30.46	10.29	13.05*	0.000	0.015	Female	474	32.83	9.06	Total of e-COM scale	Male	414	183.51	34.20	0.609*	0.435	0.000	Female	474	181.81	34.20																				
Emotional e-independence	Male	414	42.21	14.18	0.356	0.551	0.000																																																								
	Female	474	42.78	14.05				Social e-competency	Male	414	30.46	10.29	13.05*	0.000	0.015	Female	474	32.83	9.06	Total of e-COM scale	Male	414	183.51	34.20	0.609*	0.435	0.000	Female	474	181.81	34.20																																
Social e-competency	Male	414	30.46	10.29	13.05*	0.000	0.015																																																								
	Female	474	32.83	9.06				Total of e-COM scale	Male	414	183.51	34.20	0.609*	0.435	0.000	Female	474	181.81	34.20																																												
Total of e-COM scale	Male	414	183.51	34.20	0.609*	0.435	0.000																																																								
	Female	474	181.81	34.20																																																											

Note: (*) based on Brown-Forsythe. $p < 0.05$.

The comparisons of means by academic year yield significant differences of moderate size in the categories of emotional e-regulation ($F_{3884} = 3.005, p = 0.030, \eta^2 = 0.010$), emotional e-independence ($F^*_{3884} = 4.853, p = 0.002, \eta^2 = 0.016$), social e-competency ($F^*_{3884} = 875.168, p = 0.009, \eta^2 = 0.013$), and, on the entire scale, emotional e-competencies ($F_{3884} = 2.875, p = 0.035, \eta^2 = 0.010$). Regarding emotional e-regulation, the results show differences between 1st and 3rd year (37.20 vs. 35.40), 2nd and 3rd year (37.52 vs. 35.40), and between 2nd and 4th year (37.52 vs. 35.60). In emotional e-independence, there are differences between 1st and 3rd year (44.80 vs. 43.50) and between 1st and 4th year (44.80 vs. 41.12). In social e-competency, there is a difference between 2nd and 4th year (33.18 vs. 31.17), and, on the total scale, a difference in social e-competency between 2nd and 4th year (187.208 vs. 179.06).

To confirm convergent validity, correlations between this study's socio-emotional e-competency scale (e-COM) and the e-motions scale were analyzed (Table 4). In most cases they are significant and situated in an intermediate range, thereby suggesting a discriminant validity among the two questionnaires, and adding new specific dimensions stemming from the virtual environment.

Emotional e-conscience and social e-competency showed significant positive relations with all dimensions of the e-motions questionnaire, whereas their relations with e-regulation of impulsiveness and emotional e-independence were negative in all cases. The dimension of emotional e-regulation showed negative relations with the dimensions of emotional expression and facilitation of positive emotions, and positive relations with the dimensions of emotional perception and emotional comprehension.

Table 4. Correlations between socio-emotional e-competencies and e-motion.

	eMOex	eMOpe	eMOfac	eMOcom	eMOTION
Emotional e-conscience	0.149 **	0.253 **	0.177 **	0.293 **	0.286 **
Emotional e-regulation	−0.089 *	0.107 **	−0.105 **	0.252 **	0.075 *
Emotional e-self-control	−0.328 **	−0.160 **	−0.386 **	−0.125 **	−0.313 **
Emotional e-independence	−0.141 **	−0.054	−0.264 **	−0.008	−0.147 **
Social e-competency	0.373 **	0.387 **	0.307 **	0.492 **	0.507 **
Total ECOM scale	−0.040	0.155 **	−0.132 **	0.277 **	0.098 **

Note: ** $p < 0.01$, * $p < 0.05$; eMOex: online emotional expression; eMOpe: online emotional perception; eMOfac: emotional facilitation toward others; eMOcom: comprehending and managing emotions; eMOTION: total e-motions scale.

4. Discussion

This study's objective was to design a tool that would evaluate socio-emotional competencies of individuals who interact with others online. The point of departure was the face-to-face socio-emotional competencies model propounded by [56], and four of these competencies were transferred to those behaviors that this research team views as adaptive in a virtual environment [32–44]. The items in the e-COM questionnaire were designed on the basis of those competencies.

On the basis of the initial face-to-face socio-emotional competencies, five dimensions were identified that are specific for the virtual environment, all of which, in the e-COM scale, have good psychometric properties, high internal consistency, and a high degree of stability across time. The five subscales are: emotional e-conscience, emotional e-regulation, e-self-control of impulsiveness, emotional e-independence, and social e-competency (Appendix A). These five dimensions adjust to the initial model [56], albeit after applying a differential modification explained below.

In parallel with what occurs in face-to-face situations, the factors of emotional conscience, emotional independence, and social competence belong to these dimensions of socio-emotional competencies, which can similarly serve to evaluate situations that arise specifically in an online environment. For instance, the factor of emotional e-conscience focuses on identifying and comprehending one's own emotions: specifically, since technology allows the user to record and reproduce messages in an online environment, his/her emotions can become more intense, thereby leading to processes of higher emotional e-conscience [50]. Emotional e-independence plays an online role that bears similarities with its face-to-face counterpart: like the latter, it is a broad dimension that includes characteristics of personal management of situations on the Web, such as self-esteem without depending on virtual status (such as the number of followers) and without depending on the perception of one's degree of integration in online groups (such as the number of comments or responses received). Similarly, as in face-to-face situations, the social e-competency factor evaluates good social relations while taking into account that digital social life is more anonymous and has a much more rapid turnover (users of social networks belong to large groups of people) and with a more intense feeling of uprootedness (since elements of communication are more limited in number and scope). This explains why this factor's content focuses on social conscience and pro-social behavior on the Internet (behaviors such as paying attention to the needs of others and calming down contacts when conflicts emerge).

The results of this study nevertheless show that in a virtual environment two aspects surrounding emotional regulation tend to stand out: one associated with the control of impulsiveness, and the other with aspects of the emotional self-control required to communicate through a screen, such as emotional disinhibition [42], the development of virtual empathy, and the management of potential misunderstandings. This is coherent with the nature of cyberspace itself, where technology allows for multitasking, immediate access to information, and rapid communication, leading to instant gratification for online actions, thereby even leading to problematic Inter-

net use [61]. Control of impulsiveness acquires a greater relevance online: it becomes the capacity to evaluate information calmly, analyze conflicts, and make appropriate decisions [10].

Regarding correlations in the scale, we found that the largest was between emotional e-independence and e-regulation of impulsiveness. This suggests that adolescents who learn to value themselves without depending on the approval of other contacts (measurable by the number of comments received on social media) tend to exhibit a greater degree of competency in terms of regulating their impulsiveness on the Web. This would indicate that education in online emotional independence (the competency to carry out online actions without having to pay heed to the social pressure exerted by social networks) could play a key role in learning to handle behaviors such as addiction to the Internet or to mobile telephones.

This study's results similarly show that the specific types of emotional regulation required in a virtual environment, e.g., emotional e-self-control and the e-regulation of impulsiveness, are positively associated with one another; in other words, adolescents who possess a high degree of self-regulation—permitting them, for instance, to take into account the feelings of those who receive their messages—are more capable of controlling their impulses on the Internet. The relations elucidated herein coincide with research conducted in an offline context, which showed that emotional reparation, empathy, and an improved adaptation to stressful events all correlate positively with self-esteem [52,62]. By comparison, emotional e-conscience and emotional e-regulation have moderate correlations with a number of values. That implies that identifying and understanding one's own emotions facilitates their regulation in order to learn to take into account that the Internet user, through a screen, is relating to a real person. Identifying and understanding our own emotions also provides Internet users with the capacity to cultivate good virtual social relations (social e-competency). These aspects are in line with the results presented in the existing literature on emotional intelligence in offline, face-to-face situations [63] and point toward a series of guidelines for online emotional education.

To conclude, these results also display a few weak, inverse relations between e-regulation of impulsiveness and emotional e-conscience. They suggest that in an online environment, a lack of control of impulses can lead a user to make instantaneous comments, thereby facilitating the identification and comprehension of his/her own emotions and the development of pro-social behavior online. In contrast, impulsiveness in face-to-face situations is associated with antisocial behavior [64]. It can thus be hypothesized that such relations can be viewed as reasonable in a virtual context, considering that impulsiveness can lead to a greater expression of one's thoughts and emotions online, and that the latter, in turn, serve as a source of information for us to identify one's own emotions, as technology allows Internet users to reread, listen to, and visualize the messages they have previously sent [65]. In the same manner, the potential for instant response promotes a greater intensity of social relations and can thereby enable the user to detect the needs of others to a greater extent than offline. In future studies it would be advisable to confirm whether these relations continue to apply, and to investigate whether the amount of time spent online can play a mediating role among those relations, since the latter factor is related to compulsive use of the Internet [66].

Previous studies have only associated emotions experienced during online interaction with face-to-face socio-emotional competencies [24,29]. They show that adolescents with high levels of socio-emotional competencies in a face-to-face context make use of emotions to a greater extent when they are online. This is similarly confirmed in the results of the current study, since all the dimensions of the e-COM questionnaire correlate significantly with the e-motions scale and with the total scales (Table 4), thereby providing further evidence of the e-COM tool's validity.

By comparison, the factor of social e-competency features the highest correlation with the global e-motions scale as compared with all other e-COM dimensions. This seems to indicate that the e-COM questionnaire evaluates aspects other than emotional expression, facilitation, and comprehension, and thus provides additional knowledge in the field of online competencies. An analysis of inverse correlations yields new findings regarding online behavior. Specifically, the factors of emotional expression and facilitation correlate inversely with e-regulation of impulsiveness, emotional e-regulation, and emotional e-independence, thereby suggesting that emotional expression, as an isolated factor, does not imply emotional competency. These relations further indicate that adolescents who are better at regulating their virtual impulsiveness and at managing their emotions when they consider that they are interacting with a real person behind the screen, tend to express their emotions less frequently. Since existing literature suggests that a high degree of online emotional content is related with a greater degree of abuse of technology [29], and with a greater level of cybervictimization and perpetuation of cyberdamage to others [24], the results of the current study seem to indicate that the specific regulation of emotions required by the virtual environment (e-regulation of impulsiveness and emotional e-self-control) can play a key role in protecting users against cyberbullying and the misuse of the Internet. Future studies would do well to look into the possible protective role played by socio-emotional e-competencies in the face of cyberbehavior and risks on the Internet.

Gender differences show that girls obtain higher scores in social e-competency. The results of the current study are in line with previous research that evaluated face-to-face socio-emotional competencies [26,52,64]. Boys, however, score higher in emotional e-conscience; that is, they perceive and comprehend their own emotions better. These results are in line with those studies in which boys achieved higher scores in emotional clarity [48,49,53], and those that pointed toward gender differences in the use of technology [67]. Future studies could therefore further explore the relations between socio-emotional e-competencies and gender, and to elucidate whether they are mediated by the passage of time or by the use of technology.

Regarding differences in terms of academic year, few studies have hitherto evaluated face-to-face socio-emotional competencies in terms of the age of adolescents, and have not been conclusive. Some of them have suggested that socio-emotional competencies do not vary with age [51] or even tend to increase slightly [34]; others indicate that they decrease with age [55]. Significant differences uncovered in the current study are in line with the latter tendency: certain dimensions of socio-emotional competencies tend to decrease with age (namely, emotional e-regulation, emotional e-independence, and social e-competency). A possible explanation for this phenomenon may be that adolescents tend to experience a decrease in positive self-esteem in addition to a decrease in the perception of their own competencies [68]. Such studies would need to be further extended in order to reach more general conclusions.

This study has certain limitations. It is based on self-reports that measure self-perceived social and emotional competencies, which would need to be complemented with other types of data. It would also be advisable to extend such studies to samples in different populations and age groups; the sample featured here was selected for matters of convenience. However, this study also possesses strong advantages: a solid theoretical basis, and an analysis of the questionnaire's structure based on two separate subsamples.

Future lines of work would need to consider that socio-emotional competencies are related to phenomena such as cyberbullying, abuse of technology, and nomophobia [20,24,29,38]. It would be advisable to investigate the protective role exerted by socio-emotional competencies in helping to avoid cyber risks. It would also be advisable to investigate the influence of socio-emotional competencies on other aspects, such as collaborative work online, or their possible relation with technology-assisted learning.

In view of the current context of generalized hyperconnectedness, the new field of education of socio-emotional competencies applied to virtual contexts has now started to play an absolutely essential role, particularly since adolescents continue to feel, think, and act when they are online. The studies presented herein represent a novelty and an advance in the field of emotional education, which is an essential component of each individual's personal development that enables adolescents to better face the challenges presented to them in daily life [2,6,7]. A measurement tool that evaluates socio-emotional competencies specific to online environments thus represents an important contribution.

This study is significant not only in view of the fact that it is the first to evaluate specific dimensions of socio-emotional online behavior, but also because future research in this field will be able to base itself on the findings presented herein to gain an improved grasp of online social learning and cyberbehavior. Since socio-emotional competencies are related to phenomena such as cyberbullying and problematic Internet use [25,30], it would be advisable to investigate the possible protective function of socio-emotional e-competencies against cybernetic risks, thereby throwing new light on these and other habitual behaviors that play a major role in the socialization of adolescents, such as phubbing [69].

In view of the current hyperconnectedness exhibited by adolescents, great progress could be achieved by incorporating socio-emotional e-competencies into emotional education programs, psychological counseling, and school curricula. For such programs to be effective, it would be necessary to design a series of motivational interventions that apply an active, sequential methodology adapted to the day-to-day experience of adolescents. This all requires a systemic, collaborative general vision that involves the entire educational community, particularly by providing schoolteachers with solid training in this field [7].

However, the literature indicates that there is still a profound disconnection between university training and the abilities required for educators to be able to apply socio-emotional learning in schools, which may prevent these latter steps from being carried out effectively. It would thus be recommendable to incorporate corresponding subjects and courses in their university curricula. Moreover, active teachers on the job need to be supported with further training and follow-up in the area of socio-emotional competencies through a collaboration between teacher training institutions and school communities [70].

Family involvement in these activities would be key, particularly in view of new learning contexts that are emerging due to the COVID-19 pandemic situation. Student distress in online classroom environments, along with problematic Internet use, are two problems that have led to student burnout and exhaustion, considerably affecting the quality of learning during the pandemic. Emotional intelligence is a factor that helps to improve the resilience of adolescents who are required to navigate online environments in this challenging context [71].

It can thus be concluded that this new questionnaire has good psychometric properties that allow it to be used in educational environments to promote harmonious online coexistence among adolescents. Similarly, it will also prove useful in the evaluation of social and emotional learning programs.

Author Contributions: Conceptualization, A.C.-S., J.C.-E. and S.O.; Investigation, A.C.-S., J.C.-E. and S.O.; Methodology, A.C.-S. and S.O.; Writing—Original Draft, A.C.-S., J.C.-E. and S.O.; Review and Editing, A.C.-S., J.C.-E. and S.O. All authors have read and agreed to the published version of the manuscript.

Funding: Santander bank and University of Zaragoza, Research Project: 270313—Emotional vulnerability of childhood and adolescence in the virtual world. Cyber risks and educational challenges derived from the COVID-19 context. Government of Aragon. Educaviva research group: S57_20R.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Research Ethics Committee of Aragón (CEICA) (C.P.-C.I. PI20/003 19 February 2020).

Table A1. Cont.

		0	1	2	3	4	5	6	7	8	9	10
Social e-Competency												
21	On social networks (Instagram, WhatsApp, e-mail, etc.) I pay attention to the needs of others Presto atención en las redes sociales (Instagram, WhatsApp, e-mail, etc.) a las necesidades de los demás											
22	I tend to know how to help people who need help on social networks (Instagram, WhatsApp, e-mail, etc.) Suelo saber cómo ayudar a las personas que lo necesitan en las redes sociales (Instagram, WhatsApp, e-mail, etc.)											
23	I offer help on social networks when people need it Ofrezco ayuda en las redes sociales cuando me necesitan											
24	I tend to help on problems that arise on social networks Suelo ayudar en los problemas que surgen en las redes sociales											
25	I tend to calm my contacts down when they get angry on social networks. Suelo calmar a mis contactos cuando se enfadan en las redes sociales											

References

- Brackett, M.A.; Rivers, S.E.; Reyes, M.R.; Salovey, P. Enhancing academic performance and social and emotional competence with the RULER feeling words curriculum. *Learn. Individ. Differ.* **2012**, *22*, 218–224. [[CrossRef](#)]
- Fernández-Berrocal, P.; Cabello, R. La inteligencia emocional como fundamento de la educación emocional. *Revista Int. Educ. Emoc. Bienestar (RIEBB)* **2021**, *1*, 31–46.
- Hoffmann, J.D.; Brackett, M.A.; Bailey, C.S.; Willner, C.J. Teaching emotion regulation in schools: Translating research into practice with the RULER approach to social and emotional learning. *Emotion* **2020**, *20*, 105–109. [[CrossRef](#)] [[PubMed](#)]
- Salovey, J.D.; Mayer, P. What is emotional intelligence? In *Emotional Development and Emotional Intelligence: Educational Implications*; Salovey, P., Sluyter, D.J., Eds.; Basic Books: New York, NY, USA, 1997; pp. 3–34.
- Cheung, C.-K.; Cheung, H.Y.; Hue, M.T. Emotional Intelligence as a Basis for Self-Esteem in Young Adults. *J. Psychol.* **2015**, *149*, 63–84. [[CrossRef](#)]
- Goleman, D. *Emotional Intelligence*; Bantam Books: New York, NY, USA, 1995.
- Bisquerra, R.; Rebolledo, C.C. Educación emocional y bienestar: Por una práctica científicamente fundamentada. *Revista Int. Educ. Emoc. Bienestar (RIEBB)* **2021**, *1*, 9–29.
- Elbertson, N.A.; Brackett, M.A.; Weissberg, R.P. School-based social and emotional learning (SEL) programming: Current perspectives. In *The Second International Handbook of Educational Change*; Hargreaves, A., Fullan, M., Hopkins, D., Lieberman, A., Eds.; Springer: Dordrecht, The Netherlands, 2009; pp. 1017–1032.
- CASEL, Collaborative for Academic, Social, and Emotional Learning. *2015 CASEL Guide: Effective Social and Emotional Learning Programs—Middle and High School Edition*; CASEL: Chicago, IL, USA, 2015.
- Bar-On, R. EQ-i: The Bar-On model of emotional-social intelligence (ESI). *Psicothema* **2006**, *18*, 13–25.
- Saarni, C. *The Development of Emotional Competence*; Guilford Press: New York, NY, USA, 1999.
- MacCann, C.; Jiang, Y.; Brown, L.E.R.; Double, K.S.; Bucich, M.; Minbashian, A. Emotional Intelligence Predicts Academic Performance: A Meta-Analysis. *Psychol. Bull.* **2019**, *146*, 150–186. [[CrossRef](#)]
- Mira-Galvañ, M.-J.; Gilar-Cobi, R. OKAPI, an Emotional Education and Classroom Climate Improvement Program Based on Cooperative Learning: Design, Implementation, and Evaluation. *Sustainability* **2021**, *13*, 12559. [[CrossRef](#)]
- Vega, A.; Cabello, R.; Megías-Robles, A.; Gómez-Leal, R.; Fernández-Berrocal, P. Emotional Intelligence and Aggressive Behaviors in Adolescents: A Systematic Review and Meta-Analysis. *Trauma Violence Abus.* **2021**, *11*, 1524838021991296. [[CrossRef](#)]
- Rueda, P.; Pérez-Romero, N.; Victoria Cerezo, M.; Fernández-Berrocal, P. The Role of Emotional Intelligence in Adolescent Bullying: A Systematic Review. *Psicol. Educ.* **2022**, *28*, 53–59. [[CrossRef](#)]

16. Jurado, M.D.M.; Pérez-Fuentes, M.D.C.; Martín, A.B.B.; Salvador, R.M.D.P.; Linares, J.J.G. Analysis of the Relationship between Emotional Intelligence, Resilience, and Family Functioning in Adolescents' Sustainable Use of Alcohol and Tobacco. *Sustainability* **2019**, *11*, 2954. [[CrossRef](#)]
17. Martínez-Fernández, M.C.; García-Rodríguez, I.; Arias-Ramos, N.; García-Fernández, R.; Trevissón-Redondo, B.; Liébana-Presa, C. Cannabis Use and Emotional Intelligence in Adolescents during COVID-19 Confinement: A Social Network Analysis Approach. *Sustainability* **2021**, *13*, 12954. [[CrossRef](#)]
18. Resurrección, D.M.; Salguero, J.M.; Ruiz-Aranda, D. Emotional intelligence and psychological maladjustment in adolescence: A systematic review. *J. Adolesc.* **2014**, *37*, 461–472. [[CrossRef](#)] [[PubMed](#)]
19. Callea, A.; De Rosa, D.; Ferri, G.; Lipari, F.; Costanzi, M. Are More Intelligent People Happier? Emotional Intelligence as Mediator between Need for Relatedness, Happiness and Flourishing. *Sustainability* **2019**, *11*, 1022. [[CrossRef](#)]
20. Gentina, E.; Tang, P.T.L.; Dancoine, F.P. Does Gen Z's emotional intelligence promote iCheating (cheating with iPhone) yet curb iCheating through reduced nomophobia? *Comput. Educ.* **2018**, *126*, 231–247. [[CrossRef](#)]
21. Gualdo, A.M.G.; Hunter, S.C.; Durkin, K.; Arnaiz, P.; Maquilón, J.J. The emotional impact of cyberbullying: Differences in perceptions and experiences as a function of role. *Comput. Educ.* **2015**, *82*, 228–235. [[CrossRef](#)]
22. Elipe, P.; Mora-Merchán, J.A.; Ortega-Ruiz, R.; Casas, J.A. Perceived emotional intelligence as a moderator variable between cybervictimization and its emotional impact. *Front. Psychol.* **2015**, *6*, 486. [[CrossRef](#)]
23. Garaigordobil, M. Psychometric Properties of the Cyberbullying Test, a Screening Instrument to Measure Cybervictimization, Cyberaggression, and Cyberobservation. *Comput. Educ.* **2017**, *32*, 3556–3576. [[CrossRef](#)]
24. Marín-López, I.; Zych, I.; Ortega-Ruiz, R.; Hunter, S.C.; Llorent, V.J. Relations among online emotional content use, social and emotional competencies and cyberbullying. *Child. Youth Serv. Rev.* **2020**, *108*, 104647. [[CrossRef](#)]
25. Rey, L.; Quintana-Orts, C.; Mérida-López, S.; Extremera, N. Emotional intelligence and peer cybervictimisation in adolescents: Gender as moderator. *Comunicar* **2018**, *26*, 9–18. [[CrossRef](#)]
26. Yudes, C.; Rey, L.; Extremera, N. Ciberagresión, adicción a internet e inteligencia emocional en adolescentes: Un análisis de diferencias de género. *Voces Educación* **2019**, *10*, 27–44.
27. Arrivillaga, C.; Rey, L.; Extremera, N. Perfil emocional de adolescentes en riesgo de un uso problemático de internet. *Rev. Psicol. Clínica Niños Adolesc.* **2021**, *8*, 47–53. [[CrossRef](#)]
28. Casale, S.; Caplan, S.E.; Fioravanti, G. Positive metacognitions about Internet use: The mediating role in the relationship between emotional dysregulation and problematic use. *Addict. Behav.* **2016**, *59*, 84–88. [[CrossRef](#)] [[PubMed](#)]
29. Nasaescu, E.; Marín-López, I.; Llorent, V.J.; Ortega-Ruiz, R.; Zych, I. Abuse of technology in adolescence and its relation to social and emotional competencies, emotions in online communication, and bullying. *Comput. Hum. Behav.* **2018**, *88*, 114–120. [[CrossRef](#)]
30. Peng, W.; Li, D.; Li, D.; Jia, J.; Wang, Y.; Sun, W. School disconnectedness and Adolescent Internet Addiction: Mediation by self-esteem and moderation by emotional intelligence. *Comput. Hum. Behav.* **2019**, *98*, 111–121. [[CrossRef](#)]
31. Fumero, A.; Marrero, R.J.; Voltes, D.; Peñate, W. Personal and social factors involved in internet addiction among adolescents: A meta-analysis. *Comput. Hum. Behav.* **2018**, *86*, 387–400. [[CrossRef](#)]
32. Caplan, S.E. Theory and measurement of generalized problematic Internet use: A two-step approach. *Comput. Hum. Behav.* **2010**, *26*, 1089–1097. [[CrossRef](#)]
33. Derks, D.; Fischer, A.H.; Bos, A.E.R. The role of emotion in computer-mediated communication: A review. *Comput. Hum. Behav.* **2008**, *24*, 766–785. [[CrossRef](#)]
34. Kramer, A.D.I.; Guillory, J.E.; Hancock, J.T. Experimental evidence of massive-scale emotional contagion through social networks. *Proc. Natl. Acad. Sci. USA* **2014**, *111*, 8788–8790. [[CrossRef](#)]
35. Sagioglou, C.; Greitemeyer, T. Facebook's emotional consequences: Why Facebook causes a decrease in mood and why people still use it. *Comput. Hum. Behav.* **2014**, *35*, 359–363. [[CrossRef](#)]
36. Stieglitz, S.; Dang-Xuan, L. Emotions and information diffusion in social media—Sentiment of microblogs and sharing behavior. *J. Manag. Inf. Syst.* **2013**, *29*, 217–248. [[CrossRef](#)]
37. Zych, I.; Ortega-Ruiz, R.; Marín-López, I. Emotional content in cyberspace: Development and validation of E-motions Questionnaire in adolescents and young people. *Psicothema* **2017**, *29*, 563–569. [[PubMed](#)]
38. Marino, C.; Gini, G.; Angelini, F.; Vieno, A.; Spada, M.M. Social norms and e-motions in problematic social media use among adolescents. *Addict. Behav. Rep.* **2020**, *11*, 100250. [[CrossRef](#)]
39. González-Cabrera, J.; Pérez-Sancho, C.; Calvete, E. Diseño y validación de la “Escala de inteligencia emocional en internet” (EIEI) para adolescentes. *Behav. Psychol.* **2016**, *24*, 93–105.
40. Del Rey, R.; Casas, J.A.; Ortega-Ruiz, R.; Schultze-Krumbholz, A.; Scheithauer, H.; Smith, P.; Thompson, F.; Barkoukis, V.; Tsorbatzoudis, H.; Brighi, A.; et al. Structural validation and cross-cultural robustness of the European Cyberbullying Intervention Project Questionnaire. *Comput. Hum. Behav.* **2015**, *50*, 141–147. [[CrossRef](#)]
41. Serrano-Puche, J. Internet and emotions: New trends in an emerging field of research. *Comunicar* **2016**, *46*, 19–26. [[CrossRef](#)]
42. Suler, J. The online disinhibition effect. *Cyberpsychol. Behav.* **2004**, *7*, 321–326. [[CrossRef](#)]
43. Svensson, J. Power, Identity, and Feelings in Digital Late Modernity: The Rationality of Reflexive Emotion Displays Online. In *Internet and Emotions*; Benski, T., Fischer, E., Eds.; Routledge: New York, NY, USA, 2014; pp. 17–32.

44. Coryn, C.L.S.; Spybrook, J.K.; Evergreen, S.D.H.; Blinkiewicz, M. Development and Evaluation of the Social-Emotional Learning Scale. *J. Psychoeduc. Assess.* **2009**, *27*, 283–295. [[CrossRef](#)]
45. Salovey, P.; Mayer, J.D.; Goldman, S.L.; Turvey, C.; Palfai, T.P. Emotional attention, clarity, and repair: Exploring emotional intelligence using the Trait Meta-Mood Scale. In *Emotion, Disclosure, & Health*; Pennebaker, J.W., Ed.; American Psychological Association: New York, NY, USA, 1995; pp. 125–151.
46. Wong, C.-S.; Law, K.S. The effects of leader and follower emotional intelligence on performance and attitude. *Leadersh. Perspect.* **2002**, *13*, 243–274. [[CrossRef](#)]
47. Alloy, L.B.; Hamilton, J.L.; Hamlat, E.J.; Abramson, L.Y. Pubertal Development, Emotion Regulatory Styles, and the Emergence of Sex Differences in Internalizing Disorders and Symptoms in Adolescence. *Clin. Psychol. Sci.* **2016**, *4*, 867–881. [[CrossRef](#)]
48. Jessar, A.J.; Hamilton, J.L.; Flynn, M.; Abramson, L.Y.; Alloy, L.B. Emotional Clarity as a Mechanism Linking Emotional Neglect and Depressive Symptoms During Early Adolescence. *J. Early Adolesc.* **2017**, *37*, 414–432. [[CrossRef](#)] [[PubMed](#)]
49. Serrano, C.; Andreu, Y. Inteligencia emocional percibida, bienestar subjetivo, estrés percibido, engagement y rendimiento académico de adolescentes. *Rev. Psicodidact.* **2016**, *21*, 357–374. [[CrossRef](#)]
50. Garaigordobil, M. Intrapersonal Emotional Intelligence during Adolescence: Sex Differences, Connection with other Variables, and Predictors. *Eur. J. Investig. Health Psychol. Educ.* **2020**, *10*, 30064. [[CrossRef](#)] [[PubMed](#)]
51. Keefer, K.V.; Holden, R.R.; Parker, J.D.A. Longitudinal assessment of trait emotional intelligence: Measurement invariance and construct continuity from late childhood to adolescence. *Psychol. Assess.* **2013**, *25*, 1255–1272. [[CrossRef](#)] [[PubMed](#)]
52. Reina, M.C.; Oliva, A. De la competencia emocional a la autoestima y satisfacción vital en adolescentes. *Psychol. Behav.* **2015**, *2*, 345–359.
53. Salguero, J.M.; Fernández-Berrocal, P.; Balluerka, N.; Aritzeta, A. Measuring Perceived Emotional Intelligence in the Adolescent Population: Psychometric Properties of the Trait Meta-Mood Scale. *Soc. Behav. Personal. Int. J.* **2010**, *38*, 1197–1210. [[CrossRef](#)]
54. Romera, E.M.; Luque-González, R.; García-Fernández, C.M.; Ortega-Ruiz, R. Competencia Social y Bullying: El Papel de la Edad y el Sexo. *Educación XX1* **2022**, *25*, 309–333. [[CrossRef](#)]
55. Gómez-Ortiz, O.; Romera, E.M.; Ortega-Ruiz, R.; Cabello, R.; Fernández-Berrocal, P. Analysis of emotion regulation in spanish adolescents: Validation of the emotion regulation questionnaire. *Front. Psychol.* **2016**, *6*, 1959. [[CrossRef](#)]
56. Bisquerra, R.; Pérez-Escoda, N. Las competencias emocionales. *Educación XX1* **2007**, *10*, 61–82. [[CrossRef](#)]
57. Lloret-Segura, S.; Ferreres-Traver, A.; Hernández-Baeza, A.; Tomás-Marco, I. El análisis factorial exploratorio de los ítems: Una guía práctica, revisada y actualizada. *An. Psicol.* **2014**, *30*, 1151–1169. [[CrossRef](#)]
58. Byrne, B.M. *Multivariate Applications Series. Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*; Routledge: New York, NY, USA, 2010.
59. O'Connor, B.P. SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behav. Res. Methods Instrum. Comput.* **2000**, *32*, 396–402. [[CrossRef](#)] [[PubMed](#)]
60. Hair, J.F., Jr.; Anderson, R.E.; Tatham, R.L.; Black, W.C. *Multivariate Data Analysis*, 5th ed.; Pearson Prentice Hall: Madrid, Spain, 1999; ISBN 84-8322-035-0.
61. Cebollero-Salinas, A.; Cano, J.; Orejudo, S. Abuso de Internet y adolescentes: Gratificaciones, supervisión familiar y uso responsable. Implicaciones educativas y familiares. *Digit. Educ. Review* **2021**, *39*, 42–59. [[CrossRef](#)]
62. Thompson, H.M.; Wojciak, A.S.; Cooley, M.E. Self-esteem: A mediator between peer relationships and behaviors of adolescents in foster care. *Child. Youth Serv. Rev.* **2016**, *66*, 109–116. [[CrossRef](#)]
63. Zych, I.; Beltrán-Catalán, M.; Ortega-Ruiz, R.; Llorent, V.J. Social and Emotional Competencies in Adolescents Involved in Different Bullying and Cyberbullying Roles. *Rev. Psicodidact.* **2018**, *23*, 86–93. [[CrossRef](#)]
64. Bresin, K. Impulsivity and aggression: A meta-analysis using the UPPS model of impulsivity. *Aggress. Violent Behav.* **2019**, *48*, 124–140. [[CrossRef](#)]
65. Lasen, A. Mobile Media and Affectivity: Some Thoughts about the Notion of Affective Bandwidth. In *Mobile Media and the Change of Everyday Life*; Höflich, J.R., Kircher, G.F., Linke, C., Schlote, I., Eds.; Peter Lang: Berlin, Germany, 2010; pp. 131–154.
66. Dhir, A.; Chen, S.; Nieminen, M. A repeat cross-sectional analysis of the psychometric properties of the Compulsive Internet Use Scale (CIUS) with adolescents from public and private schools. *Comput. Educ.* **2015**, *86*, 172–181. [[CrossRef](#)]
67. Twenge, J.M.; Martin, G.N. Gender differences in associations between digital media use and psychological well-being: Evidence from three large datasets. *J. Adolesc.* **2020**, *79*, 91–102. [[CrossRef](#)]
68. Robins, R.W.; Trzesniewski, K.H. Self-Esteem Development Across the Lifespan. *Curr. Directions Psychol. Sci.* **2005**, *14*, 158–162. [[CrossRef](#)]
69. Cebollero-Salinas, A.; Cano-Escoriaza, J.; Orejudo, S. Impact of Online Emotions and Netiquette on Phubbing from a Gender Perspective: Educational Challenges. *Rev. Nuevos Enfoques Investig. Educ.* **2022**, *11*, 64–78. [[CrossRef](#)]
70. Lozano-Peña, G.; Sáez-Delgado, F.; López-Angulo, Y.; Mella-Norambuena, J. Teachers' Social-Emotional Competence: History, Concept, Models, Instruments, and Recommendations for Educational Quality. *Sustainability* **2021**, *13*, 12142. [[CrossRef](#)]
71. Basri, S.; Hawaldar, I.T.; Nayak, R.; Rahiman, H.U. Do Academic Stress, Burnout and Problematic Internet Use Affect Perceived Learning? Evidence from India during the COVID-19 Pandemic. *Sustainability* **2022**, *14*, 1409. [[CrossRef](#)]