CHILDREN USING FACEBOOK: PERSONALITY TRAITS, SELF-CONCEPT AND SCHOOL PERFORMANCE

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ABSTRACT

Social interaction and communication is basically orchestrated through Social Networking Sites (SNS) with Facebook being amongst the most popular ones. Previous research has shown users' personality as a highly relevant factor when examining the way people behave virtually. In the present study, we investigated the relationship between Facebook usage and personality in children aged 10 to 13 years with a personal account on Facebook, defined in terms of a Five-Factor Model. The relationship between Facebook usage and users' self-concept regarding their school performance and their happiness and satisfaction about life was also investigated. For this purpose, children's teachers were asked to evaluate children's school performance, in order to better examine the relationship between Facebook usage and users' school performance. Three hundred and forty-eight (348) pupils of elementary and secondary schools in Patras (Greece) participated in the study. The results indicated that Facebook usage has a statistically significant association with personality traits like Neuroticism, Openness to Experience, Agreeableness, and Conscientiousness. Moreover, children who perceived themselves as good pupils did not have a Facebook account. Also, Facebook usage has been found to be negatively related to users' school performance, as assessed by their teachers. No statistically significant associations were found between Facebook usage and users' self-perceptions regarding their happiness and general satisfaction with life.

KEYWORDS

Facebook usage, Big Five personality traits, self-concept, school performance

1. INTRODUCTION

The Internet has changed the human experience in terms of communication (Correa et al., 2009; Jones, 2009; Ross et al., 2009). Increasing numbers of people are going online for socialization (Jones, 2009; Jones & Fox, 2009). Social Networking Sites (SNSs) satisfy such requests for communication, instant messaging (Correa et al., 2009), and continuous receiving of information (Hughes et al., 2011). Facebook was the first SNS to surpass the mark of 1 billion registered accounts after its inception in 2004, recently reaching the mark of 2,7 billion monthly active users (Statista, 2020).

Previous studies have focused on identifying the types of people who use Facebook (Rafee & Bonds-Raacke, 2008; Tufekci, 2008) and have investigated how personality relates to Facebook usage (Ross et al., 2009; Amichai-Hamburger & Vinitzky, 2010; Moore &McElroy, 2012). Launched in 2004, young people seem to be more eager to use Facebook (Correa et al., 2009; Lenhart, 2009), while adults under 25 using Internet in the majority have a profile on SNSs.

Although users under the age of 13 are not allowed to register for SNSs like Facebook (Facebook 2020), recent studies have shown that adolescents under the age of 13 may still have a profile on SNSs (Košir et al., 2016). Such a delinquency may have negative effects on different aspects of children's school life, considering, for example, SNS use as a possible distraction from school studies (Kirschner & Karpinski, 2010).

Although SNSs and Facebook seem to be a youngster's tendency, no previous research has investigated the links between personality and Facebook usage focusing on children as users.

The purpose of the present study was to investigate the nature of Facebook usage in a child-aged sample and explore the way personality is linked to this usage. The present study could contribute in comprehending and building a safer Facebook environment based on the findings regarding children' s personality as related to their using of Facebook (Kokkinos et al., 2010; O'dell, 2011). Children's self-concept regarding school performance and happiness about life was investigated alongside Facebook usage. Their school performance, as assessed by their teachers was also investigated in relation with Facebook usage.

2. LITERATURE REVIEW

2.1. Facebook

The initial purpose of Facebook was to provide university students the opportunity to create and maintain social ties during their studies (Ellison et al., 2007). Facebook is widely used by young people and ranks first among SNSs (Pempek et al., 2009; Lenhart et al., 2010). The fundamental difference between Facebook and other SNSs is the offline to online trend of communication (Ellison et al., 2014). Many users' "Facebook friends" are already known from the offline world.

Facebook users are granted the opportunity to build a virtual personal identity by creating a personal profile picturing their age, sex, marital status, studies, profession or/and other personal information.

Moreover, Facebook permits its users to chat with friends, make posts, upload photos on their personal page (called "the Wall"), and comment on or 'like' their friends' posts (Facebook, 2020). Obviously, Facebook has changed the way people interact with one another in terms of communication (Richardson & Hessey, 2009).

2.2. Personality Traits and Facebook

Numerous researchers have shown personality to be a highly relevant factor when studying the way people behave on the Internet (Hamburger & Ben-Artzi, 2000; Ross et al., 2009; Amichai-Hamburger & Vinitzky, 2010; La Sala, Skues & Grant 2014; Hatzithomas, Misirlis, Boutsouki, & Vlachopoulou 2017).

The consensus among many researchers was that personality could be characterized by a series of five dimensions (Funder, 2000). All individuals score on each of the five dimensions of personality as described by the Big Five Model which comprises Extraversion, Agreeableness, Neuroticism, Conscientiousness and Openness to Experience.

Each factor has two (2) opposite poles (e.g. extroversion-introversion, neuroticism-emotional stability, conscientiousness-lack of direction, etc.). The Five-Factor structure was cross-culturally applied, suggesting that it is universal (John & Srivastava, 1999).

2.3. Extroversion

Extroversion, as a personality factor, has been found to be strongly associated with Facebook usage (Ross et al., 2009; Amichai-Hamburger & Vinitzky, 2010). Extroverts are talkative individuals who like to meet new people and make friends. On the opposite pole, there are introverts, who feel shy and uncomfortable engaging in interpersonal relationships (Costa & McCrae, 1992). Extroversion was linked to SNSs use (Correa et al., 2010) for reasons of socialization, information gathering, and information spreading (Sheidman, 2013). In fact, extroverts were more eager to anticipate social interactions over the Internet than the introverts (Gosling et al., 2011).

Previous studies have indicated extroverted Facebook users have a great number of "Facebook friends" (Amichai-Hamburger & Vinitzky, 2010; La Sala, Skues & Grant 2014; Hatzithomas, Misirlis, Boutsouki, & Vlachopoulou 2017) and post photos and update their personal status on Facebook frequently (Lee et al., 2014). Extroverts tend to use Facebook primarily for socialization (Sheidman, 2013; Ryan & Xenos, 2011), as reflected in their preference for features on Facebook which permit their involvement in more social activities, like joining groups on Facebook (Ross et al., 2009).

2.4. Neuroticism

Neuroticism, or emotional instability, reflects a person's tendency to experience feelings of sadness and despair (Costa & McCrae, 1992). In fact, those with greater degrees of Neuroticism were likely to use the Internet to avoid loneliness (Hughes et al., 2011) and preserve the feeling of belonging to a group through e-connection (Amichai-Hamburger & Ben-Artzi, 2003; Butt & Phillips, 2008).

Researchers have found that neurotic people used Facebook to seek attention, which they lack in their daily offline lives (Ross et al., 2009; Marshall et al., 2015; Hatzithomas, Misirlis, Boutsouki, & Vlachopoulou 2017), while Sheidman (2013) showed that neurotics used Facebook as a passive agent for seeking information about others' lives.

2.5. Openness to Experience

Openness to Experience describes an open-minded person, full of curiosity for the world around him, and a willingness to explore new settings (Costa & McCrae, 1992). Openness to Experience is linked to SNS use for sociability (Correa et al., 2010). In addition, open-minded people are more likely to explore new e-settings (Butt & Philips, 2008).

It has been established in previous research that Openness to Experience is significantly correlated with the use of Facebook indicating that involvement in such social network is an alternative kind of online communication (Ross et al., 2009; Moore & McElroy, 2012; Wang et al., 2012). People with curiosity about new experiences tend to explore different possibilities provided through Facebook, such as messages, wall, games, photos, etc. (Amichai-Hamburger & Vinitzky, 2010).

Despite the previous research data, Sheidman (2013) has shown that Openness to Experience was not related to Facebook usage in a sample of university students. Facebook usage had probably become such a common tool for students (Ellison et al., 2007) that it was no longer related to "new experiences".

2.6. Conscientiousness

Conscientiousness, as a personality factor, refers to a person's ability regarding dependability, responsibility, organizational skills, and self-discipline (Costa & McCrae, 1992). Conscientious individuals consider SNSs as external distractions from their duties (Butt & Phillips, 2008).

Because of their tendency to place great emphasis on fulfilling obligations and meeting deadlines on a daily basis, highly-conscientious individuals avoid external distractions, like SNSs and Facebook (Hughes et al., 2011; Lee et al., 2014). As a result, Conscientiousness is negatively associated with time spent on Facebook (Moore & Xenos, 2011).

2.7. Agreeableness

Agreeableness, as a personality factor, describes a person perceived as sympathetic, kind, cooperative, and caring in his/her interpersonal relationships (Costa & McCrae, 1992).

Individuals in low Agreeableness face significant difficulties in forming offline friendships and therefore have fewer Facebook friends, considering Facebook as an offline-to-online communication channel (Landers & Lounsbury, 2006). Facebook users who score higher on Agreeableness are more likely to display personal information on their Facebook profiles (Moore & McElroy, 2012) and comment on others' statuses (Wang et al., 2012; Hatzithomas, Misirlis, Boutsouki, & Vlachopoulou 2017). However, no significant relationship has been found between Facebook usage and Agreeableness (Ross et al., 2009; Moore & McElroy, 2012).

2.8. Self-concept and Facebook

Self-concept refers to the knowledge that the individual maintains for himself/herself in relation to important aspects of his/her life, such as happiness and satisfaction about his/her life and school performance, regardless of whether this knowledge is correct or false (Psarou & Zafiropoulos, 2001; Piers & Herzberg, 2002).

Younger individuals tend to be happier and therefore form a more positive self-concept, compared with older individuals who attribute more realistic features to themselves (Marsh et al., 1998). What is more, high school performance contributes to developing positive self-concepts (Hatzichristou & Hopf, 1992). In contrast, people with learning difficulties were likely to develop low self-concepts (Hatzichristou & Hopf, 1993). According to the literature, self-perception contributes to maintaining a positive image of self and thus maintaining the emotional balance of the individual (Epstein, 1973).

SNSs create the impression that some users are better than others (Chou & Edge, 2012). De Vries and Kühne (2015) have shown that the intensity of Facebook usage would cause a negative social comparison on Facebook and thus provoke the emergence of negative self-expressions and self-concepts. The findings argued that Facebook might affect negatively the well-being of young people by forming negative social comparisons and negative self-concepts regarding different aspects of his/her life, like happiness, satisfaction about life, or school performance.

2.9. School Performance and Facebook

Questioning the relationship between Facebook usage and academic performance, Kirschner and Karpinski (2010) have shown that when Facebook and studying were performed at the same time, Facebook had a negative effect on studying, although the survey did not implicate Facebook to be

a predictive factor for poor academic performance. In addition, Facebook users who took part in this survey reported to have received low scores in their academic studies and devoted only a few hours weekly for studying. On the contrary, participants who did not have a personal account on Facebook had received a high average score for their academic performance. Consequently, time devoted to academic work has been indicated to anticipate academic success (Junco 2012a), while Facebook, as a distinct variable, has been demonstrated to negatively affect users' average scores in the semester (Junco 2012b).

3. RESEARCH QUESTIONS

The present study addresses the following questions:

Is Facebook usage of children aged 10 to 13 related to:

a) The five dimensions of personality traits namely Extraversion, Agreeableness, Neuroticism, Conscientiousness, and Openness of Experience?
b) Their level of self-concept regarding their happiness, satisfaction about life, and school performance?
c) Their school performance, as assessed by their teachers?

4. MATERIALS AND METHODS

4.1. Participants

Data were collected from three hundred and forty-eight (348) children aged ten (10) to thirteen (13) currently attending primary and secondary schools in Patras, Greece. The five (5) schools of the participants were randomly selected between urban and suburban primary and secondary schools that exist in the area of the Patras city (Greece). One hundred and seventy-six (176) children from the sample were boys and one hundred and seventy-two (172) were girls. One hundred and ninety-seven (197) children attended primary schools (5th and 6th grades), while one hundred and fifty-one (151) children attended secondary schools (1st and 2nd grades A three-part questionnaire was administered (as described below). The average of students' completing the questionnaire was forty-five minutes (45') under the researchers' instruction

4.2. Research Tools – Instruments

All participants completed the following three (3) questionnaires one afterthe other:

- A questionnaire focused on Facebook usage, consisted of seventeen (17) questions in total was used. In this, the questionnaire of Ross et al. (2009), the Facebook Intensity Scale of Ellison, Steinfield, and Lampe (2007) and the scale of Hughes et al. (2011) concerning Facebook usage for socializing or information gathering/spreading, were included. Moreover, a few options to the possible answers of some questions were added to make the questionnaire more responsive to the target audience (e.g. in the question "Why don't you have a Facebook account?" the option "I don't use Facebook because my parents don't allow me to" was added) and the question "Are your parents aware of your Facebook account?" was added.

- All methodology regulations were respected, to ensure the validity of the research (International Test Commission, 2017; Panagiotakopoulos & Sarris, 2016). The scales were translated into the Greek language to facilitate the survey. Content equivalence of the

questionnaire was ensured using the back translation method (Brislin, 1970). Questionable items were addressed by a team of three experts representing the fields of Education, Impact of Internet Use and Social Psychology. After this, a pilot study was conducted with four (4) children, in order to check both the understandability of the questions and the settings of the survey.

- Two subscales of the Piers-Harris Children's Self-Concept Scale-Second Edition (Piers-Harris 2) (Piers & Harzberg, 2002) was used to assess children's self-concept regarding their mental abilities, school performance and feelings of life satisfaction and happiness. The 'Intellectual and School Status' (INT) subscale consisted of sixteen (16) questions and the 'Happiness and Satisfaction' subscale was consisted of the ten (10) questions (Stalikas, 2002). Answers were obtained from a split "Yes/No" response.

- The Big Five Questionnaire for Children (Kokkinos & Markos, 2014) was used to assess children's personality traits. The questionnaire was comprised of sixty-four (64) statements relating to habits and behaviors that may respond to individuals' features and evaluate the five dimensions of personality in accordance with the Five-Factor Model. Out of the sixty-four (64) statements, thirteen (13) were related to Extroversion (e.g. "I like meeting new people"), thirteen (13) to Neuroticism (e.g. "I am in a bad mood"), thirteen (13) to Openness to Experience (e.g. "I like reading books"), thirteen (13) to Conscientiousness (e.g., "I do my duty"), and thirteen (13) were related to Agreeableness (e.g. "I let others use my things"). Each of the statements utilizes a five-point scale ranging from 1 (almost never) to 5 (almost always). The questionnaire of Big Five Factors demonstrates strong reliability and validity (Barbaranelli et al., 2003; Kokkinos et al., 2015).

Finally, teachers were asked to evaluate the children's school performance on a seven-point scale (1=very low to 7=very high school performance). School performance was evaluated regarding reading, spelling, written expression, language management (overall), mathematics, and overall school performance.

Concerning the data collection, the research took place from the middle of September 2019 up to the middle of October of 2019.

4.3. Ethics

The research was conducted based on the authorization issued by the Administrative Council of the Department of Education and Social Work, University of Patras and Region of Western Greece, protocol number: 990/23159, July 16, 2019, as dictated by law and the relevant enforceable standards.

Prior to the actual survey, there was a pre-consultation meeting of the researchers with the Director in which the purpose of the research was defined, and the setting out of the survey was established so that the operational qualification of the school would be secured. Exact dates of researchers conducting the survey were confirmed by applying international guidelines and regulations that exist on issues relating to informed consent of the students' parents as well as the confidentiality of the collected data. So, it was ensured that data collection would be anonymous deriving from students whose parents have consented to the participation of their children in the research.

The administration of the questionnaire was conducted by the researchers on the appointed day and time by the school directors as well the teachers of the classes and under their supervision. In

any case, the data collection was anonymous, the ethics of the research were fully respected and the privacy of the participants was maintained.

5. FINDINGS

The results of the study are based on the descriptive and explanatory statistical analysis of the data using the SPSS statistical package. The Kolmogorov-Smirnov normality test was used to identify the distribution of the data for each variable of the study. According to the results of the Kolmogorov-Smirnov normality test and the type of the data for each variable appropriate statistical test were used to detect statistically significant differences among the groups and subgroups of the study's sample and correlations among the variables of the study. The x2 goodness-of-fit test and x2 test of independence were used to test nominal and ordinal variables, student's t-test was used to test interval and ratio variables with normally distributed data, Mann-Whitney U test and Spearman correlation coefficient were used to test interval and ratio variables with non-normally distributed data.

Data of every scale were checked for internal consistency using Cronbach' s alpha coefficient indicating acceptable levels for all scales used namely $0.67 <= \alpha <= 0.85$. All values for the used scales and subscales are shown in Table 1.

Table 1 Cronbach's α coefficient for all instruments

Instrument	Cronbach's α
Facebook intensity scale	0.77
Piers-Harris Children' Self-Concept scale	0.75
Children's self-concept about their school performance subscale	0.69
Children's self-concept for happiness/satisfaction about life subscale	0.67
Big Five scale	0.85
Extroversion subscale	0.73
Neuroticism subscale	0.81
Agreeableness subscale	0.79
Openness to Experience subscale	0.74
Conscientiousness subscale	0.77

5.1. Facebook Usage

Although a minority of the participants claimed to have a Facebook account (3 out of 10 participants), this remains an important finding referring to children aged ten (10) to thirteen (13) as Facebook users. All participants who did not have a Facebook account stated that they were well aware of Facebook, that shows the popularity of Facebook among young people Parents' s forbidding their children' s registering on Facebook was stated as the reason for not having a Facebook account by the 48.6% of the sample.

Boys reported being Facebook users more often than girls (x2(1)= 15.577; p < .05). In addition, age was found to be statistically significant related with students' s possessing a Facebook account (x2(3)= 40.389; p < .05).

Based on frequencies of children who reported having a Facebook account, 66.7% were attending secondary schools, while 33.3% were attending primary schools (Table 2).

Table 2 Ownership of Facebook account among primary-school-age children and secondary
-school-age children

Do you have a Facebook account?	Yes	No	Total N
Primary-school-age children			197
Boys	26	73	99
Girls	9	89	98
Secondary-school-age children			151
Boys	44	33	77
Girls	26	48	74
Total N	105	243	348

Older users at secondary schools not only had a Facebook account more often but also made a more intense use of Facebook (t(103)= 2.290;p < .05), incorporating emotional attachment to the site and considering Facebook a part of their everyday lives (Table 3).

Table 3 Intense use of Facebook of primary-school-age children and secondary-school-age children

Intense use of Facebook	Mean$\pm$SD	t	df	p
Primary-school-age children	17.80$\pm$5.27	2.290	103	.024
Secondary-school-age children	15.47$\pm$4.72			

The average time of participants' Facebook usage was half to one hour daily while the average number of Facebook friends was cited to be three hundred and twenty-four (324). The more friends the user had, the more photos he/she had posted on his/her profile (r_s(103)= .486; $n = 105$; $p < .05$) and the more time he/she was spending on Facebook daily (r_s(103) = .486; $n = 105$; $p < .05$). The majority of users (58.1%) cited messages as the favorite Facebook application.

5.2. Students' Facebook use in Relation with Their School Performance and Self-Concept

Students' Facebook account possession and use were found to be statistically significant related with their self-concept as for their school performance (U(348)=10742; Z=-2.37; $p < .05$; $r = -0.13$). Children who perceived themselves as pupils with low performance at school said they have Facebook profiles.

However, no statistically significant relationships were found between children's self-concept regarding their happiness and satisfaction with their lives and possession of a Facebook account (U(348)=11573; Z=-1.525; $p > .05$; r =-0.08) (Table 4).

Table 4Children's self-concept regarding their school performance and happiness/satisfaction about life depending on having a Facebook account

Do you have a Facebook account?	Yes (Mean$\pm$SD) (N=105)	No (Mean$\pm$SD) (N=143)	U (N=348)	p
Children's self-concept regarding their school performance	12.46 ($\pm$ 2.92)	13.3 ($\pm$ 2.29)	10742	.018
Children's self-concept regarding their happiness and satisfaction about life	8.9 ($\pm$ 1.58)	9.17 ($\pm$ 1.33)	11573	.127

5.3. Facebook usage and Big Five Personality Traits

5.3.1. Extroversion

The results indicated that more extroverted children made a more intense use of Facebook ($r_s(103)= .259$; $p < .05$), viewing Facebook as a vital part of their everyday lives and incorporating emotional attachment to the site. However, extroverts did not tend to devote great time connecting on social networking. Given their strong tendency for sociability, we hypothesized that extroverted children would use Facebook for communication (e.g., messaging). In addition to this, extroverted users claimed that they were using Facebook primarily for socialization ($t(103) = .306$; $n = 105$; $p < .05$). However, messaging was not noted as their most preferred Facebook application. Associations between Extroversion and number of Facebook groups, number of Facebook friends, and number of personal photos posted were not derived.

5.3.2. Neuroticism

A statistically significant relationship between possession of a Facebook account and Neuroticism as a personality trait was derived ($U(348) = 14936.5$; $Z=2.53$; $p < .05$; $r = .135$) (Table 5). Girls scored higher on Neuroticism than boys of the same age ($U(348)= 17700.5$; $Z =2.73$; $p < .05$; $r = .146$). Because of their desire to seek online support, children who scored higher on the trait of Neuroticism were expected to spend more time on Facebook sharing personally-identifiable information, like personal posts and photos.

5.3.3. Agreeableness

The results showed a statistically significant relationship between possession of a Facebook account and Agreeableness as a personality trait among children aged ten (10) to thirteen (13) ($U(348)= 16430$; $Z=-2.746$; $p < .05$; $r =-0.147$).

Given the fact that Facebook is an offline-to-online communication channel, children who had more friends in real life and scored higher on the trait of Agreeableness seem to have more "Facebook friends", as well ($r_s(103) = .230$; $p < .05$). Secondary school-age children scored higher on Agreeableness than primary school-age children ($U(348) = 12469$; $Z =-2.58$; $p < .05$; $r =-0,138$).

5.3.4. Openness to Experience

A statistically significant relation showed between the possession of a Facebook account and Openness to Experience as a personality trait ($U(348) = 10588.5$; $Z =-2.52$; $p < .05$; $r =-0.135$). Children who constantly seek new experiences and scored higher on the trait of Openness to Experience were expected to use a great number of features on Facebook (photos, messages, chat, games, etc.), because of their tendency to be curious but not such relations were derived.

Moreover, children who scored higher on the trait of Openness to Experience were supposed to use Facebook to communicate with other users. In fact, users with Openness to Experience used Facebook both for socializing ($r_s(103)= .195$; $p < .05$) and information gathering/spreading ($r_s(103)= .233$; $p< .05$) (Table 6).

5.3.5. Conscientiousness

The results showed a statistically significant relationship between possession of a Facebook account and Conscientiousness as a personality trait ($U(348)= 7945$; $Z =-5.592$; $p < .05$; $r =-0.29$). More conscious children claimed not to have a Facebook account, and, if they had one, their parents were aware of it ($U(105) = 353$; $Z=-2.006$; $p < .05$; $r =-0.195$).

No statistically significant associations derived between the trait of Conscientiousness and the use of Facebook activities and sharing of personal information.

Table 5 Big Five Personality Factors and possession of a Facebook account

Do you have a Facebook account?	Yes (Mean±SD) (N=105)	No (Mean±SD) (N=143)	U (N=248)	p
Neuroticism	34.38 (± 8.4)	31.62 (± 8.26)	14936.5	.011
Extroversion	48.42 (± 7.2)	48.19 (± 6.88)	12676.0	.925
Agreeableness	46.96 (± 6.83)	49.05 (± 7.59)	10394.5	.006
Openness to Experience	46.93 (± 7.62)	49.19 (± 7.43)	7945.0	.000
Conscientiousness	46.3 (± 8.23)	51.53 (± 7.03)	10588.5	.012

Table 6 Correlations between Big Five Personality Factors, Facebook usage for communication, Facebook usage for information, and intense use of Facebook

	Neuroticism	Extroversion	Agreeableness	Conscientiousness	Openness to Experience	Facebook usage for socializing	Facebook usage for information	Intense use of Facebook
Neuroticism	1							
	348							
Extroversion	-.035	1						
	.511							
	348	348						
Agreeableness	-.322**	.418**	1					
	.000	.000						
	348	348	348					
Conscientiousness	-.307**	.273**	.584**	1				
	.000	.000	.000					
	348	348	348	348				
Openness to Experience	-.207**	.448**	.518**	.583**	1			
	.000	.000	.000	.000				
	348	348	348	348	348			
Facebook usage for communication	-.058	.399**	.047	.042	.195*	1		
	.555	.000	.635	.672	.046			
	105	105	105	105	105	105		
Facebook usage for information	-.151	.323**	.089	.078	.233*	.239*	1	
	.125	.001	.365	.427	.017	.014		
	348	105	105	105	105	105	105	
Intense use of Facebook	.063	.259**	.095	-.044	.089	.404*	.321**	1
	.522	.008	.334	.654	.369	.000	.001	
	105	105	105	105	105	105	105	105

** Correlation is significant at the 0.01 level.

* Correlation is significant at the 0.05 level.

5.4. Facebook usage and Children's School Performance Through Teachers' Evaluation Scale

The results showed a statistically significant relationship between possession of a Facebook account and users' school performance as assessed by teachers, regarding reading (t(346)= 2.2; p < .05), spelling (t(346)= 3; p < .05), written expression (t(346)= 4.1; p < .05), language management and language ability for usage (overall) (t(346)= 3.8; p < .05), mathematics (t(346)= 3; p < .05), and overall school performance (t(346)= 3.7; p < .05) (Table 7). In accordance with our previous hypothesis, children who claimed to have a personal profile on Facebook were assessed as having a low school performance by their teachers.

Table 7 Correlation of teachers' assessment of children's school performance and having a Facebook account

Do you have a Facebook account?	Yes (Mean±SD) (N=105)	No (Mean±SD) (N=143)	t	df	p
Reading	5.12 (± 1.47)	5.49 (± 1.4)	2.2	346	.028
Spelling	4.40 (± 1.57)	4.97 (± 1.63)	3.0	346	.003
Written expression	4.16 (± 1.54)	4.91 (± 1.6)	4.1	346	.000
Language management and language ability for usage (overall)	4.38 (± 1.55)	5.06 (± 1.52)	3.8	346	.000
Mathematics	4.68 (± 1.46)	5.19 (± 1.59)	3.0	346	.005
Overall school performance	4.59 (± 1.48)	5.23 (± 1.5)	3.7	346	.000

6. DISCUSSION

Facebook regulations allow users to create a personal account on the condition that they are over thirteen (13) years old. The results of the present study indicated that one out of three (1/3) participants violated such regulations and joined Facebook by providing false data. A percentage of 94.3% of these users claimed that they had the permission of their parents to do so.

Previous research has shown extroversion to be strongly associated with Facebook usage in an adult sample (Ross et al., 2009; Amichai-Hamburger & Vinitzy, 2010). In the present study, extroversion was not statistically associated with Facebook usage among children. Consistent with Sheildman's (2012) and Ryan's and Xenos' (2011) studies, young extroverts were using Facebook primarily for socialization. However, the present study didn't show that extroverts belonged to more groups on Facebook, had more Facebook friends, or posted more photos on Facebook, as previous studies have shown them likely to do (Amichai-Hamburger & Vinitzky, 2010; Gosling et al., 2011; Lee et al., 2014; Hatzithomas, Misirlis, Boutsouki, & Vlachopoulou 2017).

In accordance with previous studies, Neuroticism was found to be strongly associated with Facebook usage. One possible explanation for this finding is that neurotics used Facebook to avoid loneliness (Amichai-Hamburger & Ben-Artzi, 2003; Butt & Phillips, 2008; Hughes et al., 2011). We could hypothesize that more neurotics would post more photos and personally-identifiable information on Facebook to seek attention, which they lack in their everyday lives (Ross et al., 2009; Marshall et al., 2015; Hatzithomas, Misirlis, Boutsouki, & Vlachopoulou 2017). However, this fact was not supported in the present study.

Agreeableness was also found to be associated with Facebook usage, even though previous studies didn't note it (Ross et al., 2009; Moore &McElroy, 2012). In accordance with the study by Landers and Lounsbury (2006), Facebook users with high Agreeableness were found to have a greater number of Facebook friends. Given the fact that Facebook promotes an offline-to-online trend of communication, people with high Agreeableness would have more online friends, as they already have more offline friends, due to their tendency to be kind and caring in their interpersonal relationships.

In addition, the finding in line with findings of previous studies supported that students' Facebook usage is correlated with the fifth personality trait dimension, Openness to Experience (Butt & Philips, 2008; Wang et al., 2012). In fact, those high in the trait of Openness to Experience use Facebook for both socialization and information gathering/spreading (Correa et al., 2010). However, such users did not display more activities on Facebook, like posting photos, writing comments, and posting of Facebook, though this was found in previous studies (Moore & McElroy, 2012; Wang et al., 2012). One possible reason for this is the sample group's age.

In accordance with previous studies, Conscientiousness was found to be associated with Facebook usage. Children high in the trait of Conscientiousness claimed not to have a Facebook account, as Facebook may be considered a distraction from school obligations for them (Butt & Phillips, 2008; Hughes et al., 2011; Lee et al., 2014).

Moreover, research showed that children with low self-concept regarding their school performance had a personal Facebook account, while children who reported a high self-concept of their school performance said they had not joined Facebook. In addition to this, negative self-comparison through Facebook could lead to the formation of such negative self-concepts (Chou & Edge, 2012) and, therefore, Facebook may affect negatively the well-being of self-concepts (deVries & Kuhne, 2015). Indeed, in this study, no significant relationship was found between Facebook usage and self-concept regarding happiness and satisfaction with life.

In accordance with previous surveys (Kirschner & Karpinski, 2010; Junco, 2012b), Facebook usage was found to be negatively related to user's school performance in reading, spelling, mathematics, written expression, language, and general school performance, as assessed by their teachers. Moreover, children who perceived themselves as happy and satisfied with their lives were assessed by their teachers to perform better at school. One possible explanation for the above relationship is that more positive self-concepts are created when children do well at school (Hatzichristou & Hopf, 1992; Craven & Debus, 1998).

The above results display the prevailing situation and the impact of SNSs in general and Facebook in particular on children ten (10) to thirteen (13) years old. A personality profile of Facebook users at this age had never been investigated before; additionally, no surveys regarding personality traits, school performance, and Facebook usage had been conducted at this age thus far. In fact, no surveys had investigated Facebook users aged 10 to 13 years, likely because researchers thought children of this age were not on Facebook, due to the site's requirements. Unfortunately, that is not the case. Results highlight the massive penetration of social networks in childhood. For this reason, such results deserve attention, further investigation, and discussion.

7. CONCLUSION

In this study, the association between personality traits, such as Extroversion, Neuroticism, Openness to Experience, Agreeableness, and Conscientiousness and Facebook usage was investigated among 10 to 13-year-old children. Moreover, the level of their self-concept regarding their happiness, satisfaction about life, and their school performance was investigated

in correlation with Facebook usage. Their school performance as assessed by their teachers was also investigated in correlation with Facebook usage.

Overall, students' Facebook usage is statistically significant correlated with four of the five personality trait dimensions, namely Agreeableness, Conscientiousness, Neuroticism and Openness to Experience. These findings are in accordance with results from previous relevant studies, yet with a different sample age.

Moreover, the results of the present study indicated that Facebook usage was negatively associated with children's self-perception regarding their school performance, but no statistically significant associations were found between Facebook usage and users' self-perceptions regarding their happiness and general satisfaction with life.

Finally, Facebook usage was negatively associated with users' school performance as assessed by their teachers. Therefore, such findings may induce a negative impact of Facebook on the school performance of children aged 10 to 13.

However, it must be taken into account that no previous studies had been conducted with a relevant school-age sample, as Facebook regulations prohibit the registration of children of this age on its platform. The results of the present study showed that such regulations were currently violated, as Facebook had become a teenage trend in terms of communication and information. Further investigation would reinforce the above findings.

On the other hand, many educators and researchers in all levels of education utilize SSNs in their teaching practice as SSNs could have different benefits to the students when they used in an appropriate designed and constructed lesson plan and educational framework. Such benefits could be increased students' engagement, enhanced communication between teachers and students, enhanced communication among students, friendly and familiar way to discuss (Alshayeb , 2018; Chee, 2014; Marzilli, Delello, Marmion, McWhorter, Roberts, Marzilli, 2014). The more familiar the SSN is to the students the more benefits could be achieved (Alshayeb, 2018). But at the same time there is still a remained skeptical about worries concerning internet security and cyberbullying issues (Chee, 2014). Nowadays, a kind of 'student-friendly' SSNs, such as Edmodo, are utilized aiming to support and enhance self-paced learning, conceptual understanding, motivation, information, communication and interaction issues (Chee, 2014).

It is evident based on the findings of the present study that further studies should be conducted aiming at identifying how students aged 10-13 years use Facebook since this usage does not constitute a U.S. federal law violation.

Future surveys may also compare middle school students' usage of Facebook and high school students' usage of Facebook in order to get more information on how young people communicate and stay informed via SNSs. In fact, the examination of users' personality may improve the SNSs use among the youngsters. Further research would give a more spherical view regarding the impact of SNSs, like Facebook, on children's lives including the use of SSNs into the educational process.

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