

THE LINK BETWEEN INSTAGRAM USE, SELF-ESTEEM AND LIFE SATISFACTION-A CORRELATIONAL STUDY

Stuart Kavanagh

N00170674

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Research Supervisor: Hannah Barton

Declaration

I declare that this submission is my own work. Where I have read, consulted, and used the work of others I have acknowledged this in the text.

Signed: Stuart Kavanagh

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Abstract

Social networking sites (SNSs) relationship with self-esteem and life satisfaction has been examined on numerous occasions. However, most research has not specifically examined Instagram use. Moreover, most research has utilised self-reported measures of SNS use. The present study aimed to address this, examining if there is a significant relationship between Instagram use, self-esteem and life satisfaction using non self-reported measures of use. A quantitative, cross-sectional, correlational design using an online questionnaire-based survey was employed. 103 student Instagram users (30% male, 62% female and 8% that identified as neither male nor female) aged between 18-49 years (M=21.33, SD=4.006) were recruited. Two Spearman rank-order correlations and one Pearson product-moment correlation were used to analyse the data. The students' Instagram use did not correlate with their self-esteem or life satisfaction. However, there was a statistically significant, strong positive correlation between the students' self-esteem and life satisfaction. The present study's results indicate that high Instagram use is not as detrimental to one's well-being as the media suggests. However, the student sample utilised restricts the findings' generalisability. Future researchers should utilise less homogenous samples. Future researchers should also examine the relationship between self-reported and non self-reported Instagram use to further the present study's findings.

1. Introduction

1.1 Social Networking Sites

Social networking sites (SNSs) are "social platforms that facilitate communication" (Pegg et al., 2018, p. 50). Hawi and Samaha (2017) reported that approximately one-third of the world's population use SNSs and that the number of users increases on average by 10 percent per annum. SNSs relationship with selfesteem and life satisfaction has been the subject of recent research (Malik & Khan, 2015; Blachnio et al., 2016; Masoed et al., 2021). These studies (Malik & Khan, 2015; Blachnio et al., 2016; Masoed et al., 2021) have provided mixed results, primarily examining Facebook and generic SNS use, largely neglecting the exploration of newer SNSs, such as Instagram (Djafarova & Rushworth, 2017; Sherlock & Wagstaff, 2019).

Instagram, a photo distributing site, launched in 2010 has over one billion monthly users, many of whom are college students (Longobardi et al., 2020; Shafer et al., 2018; Pew Research Center, 2021). Huang and Su (2018) affirmed that Facebook is the most popular SNS but is decreasing in popularity. Instagram in comparison is increasing in popularity, with its monthly users rising from 800 million to over one billion since 2018 (Adegbola et al., 2018; Parker et al., 2021). This growth illustrates the need for more Instagram specific research (Sherlock & Wagstaff, 2019). This growth also illustrates the importance of the present study as outlined in Djafarova and Rushworth (2017). The concerns associated with self-reported measures of SNS use further illustrates the importance of the present study (Andrews et al., 2015; Scharkow, 2016). The present study will overcome previous studies' limitations such as measuring self-reported SNS use (Stapleton et al., 2017). The present study will also address concerns associated with high SNS use (Huang, 2017; O'Keeffe, 2016). The present study's examination of Instagram use through non self-reported measures has not been utilised in research on the relationship between Instagram use, selfesteem and life satisfaction to the researcher's knowledge (Stapleton et al., 2017; El Khouly, 2018; Kalinina, 2019; Kersebaum, 2020). Moreover, most research on Instagram has been conducted outside of Ireland presenting a gap in the literature. The present study aims to address this, exploring the relationship between Instagram use, self-esteem and life satisfaction using a sample of Irish based college students. The

present study's results will be compared with self-report based findings, contributing important information to the field (Andrews et al., 2015; Scharkow, 2016).

1.2 Theories of Self-Esteem

Self-esteem is "one's overall evaluation of oneself" (Wood, 2015, p. 133). Theories on sources of self-esteem include Cooley's (1902) looking-glass self theory and Mead's (1934) symbolic interactionism theory (Gecas & Schwalbe, 1983; Mead, 1934). The looking-glass self theory proposes that individuals' self-evaluations are based on the evaluations of others. The occurrence of negative evaluations from others is likely to result in low self-esteem (Gecas & Schwalbe, 1983). The symbolic interactionism theory is similar but emphasises the meaning of objects, events and phenomena. This theory manifested from Mead's interest in individuals interacting through symbolic means. Carter and Fuller (2015, p. 2) described these individuals as constantly "engaged in mindful action where they manipulate symbols and negotiate the meaning of situations."

1.3 SNS Use and Self-Esteem

SNS use has been reported to have a negative relationship (Kalpidou et al., 2011; Faraon & Kaipainen, 2014; Malik & Khan, 2015; Andreassen et al., 2017) positive relationship (Gonzales & Hancock, 2011) and no relationship (Stapleton et al, 2017; El Khouly, 2018; Kalinina, 2019) with self-esteem. These mixed results were explored in a recent meta-analysis (Saiphoo et al., 2020). This meta-analysis reported that a small, negative, and significant relationship exists between SNS use and self-esteem. Saiphoo et al. (2020) results contradict the positive relationship reported in Gonzales and Hancock (2011) and the studies that specifically examined Instagram use (Stapleton et al., 2017; El Khouly, 2018; Kalinina, 2019). However, these studies (Stapleton et al., 2017; El Khouly, 2018; Kalinina, 2019) examined Instagram intensity using adaptations of the Facebook Intensity Scale (FIS). The utilisation of this modified self-report measurement may explain the absent correlation between Instagram use and self-esteem reported in these studies (Stapleton et al., 2017). Sherlock and Wagstaff (2019) highlighted the lack of research on Instagram's relationship with self-esteem, illustrating the need for further research. This lack of

Instagram specific research resulted in the present study using the aforementioned studies as the foundation for its first hypothesis.

Malik and Khan (2015) investigated the impact of Facebook addiction on students' narcissistic behaviour and self-esteem. The participants (N=200) were students from the University of Sargodha in Pakistan and assessed with the Bergen Facebook Addiction Scale (BFAS), the Hypersensitive Narcissism Scale, and the Rosenberg Self-Esteem Scale (RSES). Malik and Khan (2015) reported that Facebook addiction was negatively correlated with self-esteem. However, the participants were recruited from one university restricting the generalisability of the findings. Andreassen et al. (2017) examined the relationship between addictive social media use, narcissism and self-esteem. The participants (N=23,532) were assessed with the Bergen Social Media Addiction Scale (BSMAS), the Narcissistic Personality Inventory-16, and the RSES. Andreassen et al. (2017) reported a negative relationship between addictive social media use and self-esteem, supporting Malik and Khan's (2015) findings. The terms addictive social media use and social media addiction are present in recent research (Malik & Khan, 2015; Andreassen et al., 2017; Liu & Ma, 2018). However, the existence of SNS addiction has been questioned (Bányai et al., 2017; Hawi & Samaha, 2017). The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders also fails to acknowledge SNS addiction (American Psychiatric Association, 2013).

The relationship between SNS use and self-esteem has been examined with inconsistent measures, samples and SNSs (Malik & Khan, 2015; Andreassen et al., 2017; Kalinina, 2019). The mixed results are perhaps influenced by the aforementioned inconsistencies and the frequent utilisation of self-reported measures of SNS use (Andrews et al., 2015; Scharkow, 2016). Andrews et al. (2015) reported a lack of correlation between actual and self-reported mobile phone use, which can question the validity of previous findings. The present study's utilisation of screenshots will accurately measure Instagram use.

1.4 Theories of Life Satisfaction

Life satisfaction is "a global cognitive judgement across a broad set of activities concerning one's quality of life" (Wang et al., 2017, p. 2). Theories related to life satisfaction include Festinger's (1954) social comparison theory (Festinger, 1954). Festinger's theory insinuates that individuals compare themselves to others for self-assessment (Festinger, 1954). Alfasi (2019) described upward social comparisons as the comparison of oneself to another that is considered superior. Alfasi (2019) described downward social comparisons as the comparison of oneself to another that is considered inferior. The information posted on SNSs is often idealistic which encourages upward social comparisons (Alfasi, 2019). In relation to Instagram, exposure to others' idealised photographs is likely to result in upward social comparisons (Kohler et al., 2021).

1.5 SNS Use and Life Satisfaction

The relationship between SNS use and life satisfaction has been comprehensively explored, however, the research on Instagram use is minimal (Kersebaum, 2020). Inconsistent measures, samples and SNSs are present in the research on SNSs relationship with life satisfaction (Blachnio et al., 2016; Masoed et al., 2021; Valenzuela et al., 2009). These inconsistencies and the utilisation of selfreported measures of SNS use likely contributed to the mixed results (Blachnio et al., 2016). Blachnio et al. (2016) examined the relationship between Facebook addiction, self-esteem and life satisfaction. The participants (N=381) were Facebook users, assessed with the BFAS, FIS, RSES and the Satisfaction with Life Scale (SWLS). Blachnio et al. (2016) reported that Facebook addiction was associated with lower self-esteem and lower life satisfaction. Masoed et al. (2021) similarly investigated the relationship between social media addiction, sleep quality and life satisfaction. The participants (N=1,014) were Egyptian based adolescent students, assessed through a structured interview questionnaire, the BSMAS, the Pittsburgh Sleep Quality Index, and the Students' Life Satisfaction Scale. Masoed et al. (2021) reported a moderate negative association between social media addiction and life satisfaction. Masoed et al. (2021) results are in accordance with Blachnio et al. (2016) findings. However, replication with other samples is needed to determine the findings' generalisability.

Pittman and Reich (2016) avowed that using image-based SNSs may increase one's life satisfaction. A positive relationship between SNS use and life satisfaction has been reported in recent research (Valenzuela et al., 2009). Valenzuela et al. (2009) examined Facebook use and whether it is related to attitudes and behaviours that enhance individuals' social capital. The participants (N=2,603) were Texan college students, assessed with the FIS, SWLS, the Rosenberg Faith in People Scale, and a reduced form of the Index of Civic and Political Engagement Scale. Valenzuela et al. (2009) reported a positive relationship between participants' intensity of Facebook use and life satisfaction.

Kersebaum (2020) examined fear of missing out as a mediator in the relationship between Instagram use and life satisfaction in young adults. The participants (N=109) completed the Fear of Missing Out Scale, SWLS, and various Instagram use questions. In contrast to the aforementioned studies, Kersebaum (2020) reported no significant relationship between SNS use and life satisfaction. The limitations of Kersebaum's (2020) study include measuring self-reported Instagram use and its completion during the Covid-19 pandemic. Zarei et al. (2020, as cited in Kersebaum, 2020) affirmed that SNSs became an important tool in maintaining social connectivity throughout the Covid-19 pandemic. Kersebaum (2020) affirmed that it is therefore questionable if the participants' self-reported SNS use might have been influenced by their situation. These mixed results validate concerns about self-reported SNS use and the need for more research, encouraging the present study.

1.6 Self-Esteem and Life Satisfaction

The relationship between self-esteem and life satisfaction has been underexamined in recent research (Moksnes & Espnes, 2013; Hawi & Samaha, 2017; Szcześniak et al., 2021). However, the results of the conducted studies have been consistent (Moksnes & Espnes, 2013; Hawi & Samaha, 2017; Szcześniak et al., 2021). These consistent results relate to Campbell's (1981) affirmation that self-esteem influences life satisfaction. Hawi and Samaha (2017) investigated the relationship between addictive SNS use, self-esteem, and life satisfaction. The participants (N=364) were college students, assessed with the Social Media Addiction Questionnaire, RSES and SWLS. Hawi and Samaha (2017) reported a positive

relationship between self-esteem and life satisfaction, supporting Moksnes and Espnes's (2013) findings. However, the utilisation of students from one university was noted as a limitation. Szcześniak et al. (2021) investigated the impact of life satisfaction on young adults' self-esteem and the mediating role of self-presentation. The participants (N=328) were Polish inhabitants assessed with the SWLS, RSES, and the Self-Presentation Style Questionnaire. Szcześniak et al. (2021) reported a strong relationship between self-esteem and life satisfaction. However, 74% of the participants were female which restricts the generalisability of the findings.

The studies above (Moksnes & Espnes, 2013; Hawi & Samaha, 2017; Szcześniak et al., 2021) are imperative but have not examined self-esteem and life satisfactions relationship regarding Instagram use. This in conjunction with the minimal research and restricted samples illustrates the need for further research.

1.7 The Present Study

The utilisation of self-reported measures of SNS use in the studies above and the lack of research on the relationship that Instagram use has with self-esteem and life satisfaction illustrates the need for the present study. The relationship between Instagram use and self-esteem has been solely explored with self-reported measures of Instagram use to the researcher's knowledge. The relationship between Instagram use and life satisfaction has also been knowingly explored solely with self-reported measures of Instagram use. This presents a gap in the literature for the present study to be among the first to explore the relationship that Instagram use has with selfesteem and life satisfaction, using non self-reported measures of Instagram use, namely screenshots. Most research on SNS use illustrates a negative correlation with self-esteem and life satisfaction (Kalpidou et al., 2011; Faraon & Kaipainen, 2014; Malik & Khan, 2015; Andreassen et al., 2017; Saiphoo et al., 2020; Blachnio et al., 2016; Masoed et al., 2021). This influenced the present study's first and second hypothesis. The relationship between self-esteem and life satisfaction has been consistent in previous research, influencing the present study's third hypothesis (Moksnes & Espnes, 2013; Hawi & Samaha, 2017; Szcześniak et al., 2021). However, these studies have not examined Instagram use to see if it plays a part in the relationship. The present study aims to explore this gap in the literature, utilising Irish based college students.

Based on previous research, the following research question was posed:

1.8 Research Question

Is there a significant relationship between Instagram use, self-esteem and life satisfaction?

1.9 Hypotheses

As a result, the following hypotheses were tested:

H1: There will be a significant negative correlation between the students' Instagram use and self-esteem.

H2: There will be a significant negative correlation between the students' Instagram use and life satisfaction.

H3: There will be a significant positive correlation between the students' self-esteem and life satisfaction.

2. Method

2.1 Design

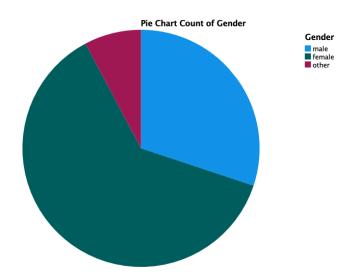
The present study employed a quantitative, cross-sectional, correlational design using an online questionnaire-based survey. The factor variables were self-esteem and life satisfaction. Self-esteem was measured through the RSES and life satisfaction was measured with the SWLS. The target variable was Instagram use, measured through screenshots of use across the last seven days. Two Spearman rank-order correlations and one Pearson product-moment correlation were used to investigate the relationship between Instagram use, self-esteem and life satisfaction.

2.2 Participants

The participants (N=103) were student Instagram users from the Institute of Art, Design and Technology (IADT). The participants were recruited through convenience and snowball sampling via an in-person data collection fair, in person and online lectures, and through their lecturers via email. The participants were between 18-49 years old (M=21.33, SD=4.006). There were 31 males (30%), 64 females (62%) and 8 (8%) others that identified as neither male nor female (see Figure 1). The number of participants was within the required G Power for a moderate and strong effect size (Faul et al., 2009).

Figure 1

Pie chart showing the participants' gender distribution



2.3 Materials

The materials utilised include an online questionnaire-based survey, commencing with a demographic section and proceeding to a questionnaire containing three sections, relating to Instagram use, self-esteem and life satisfaction. This online questionnaire-based survey was created and completed on Microsoft Forms.

The participants were presented with an information sheet outlining the aims of the study and assurance that their anonymity would remain intact (see Appendix B). A consent form was then provided, utilising a tick the box approach to ensure the aforementioned anonymity (see Appendix C). The participants were then provided with a debrief document upon completion of the questionnaire-based survey containing the researcher and supervisor's contact details as well as support services information (see Appendix D).

The participants' Instagram use was recorded first. This section of the questionnaire-based survey was divided into two subsections. The first subsection was for iPhone and Samsung users, and the second subsection was for all other Android users. In each subsection, the participants were instructed on how to find their weekly average Instagram use and asked to attach a screenshot of their average use across the last seven days (see Figure 2).

Figure 2

Instagram usage instructions

Instagram Usage

Please present your average Instagram use over the past week (7 days).

Section 1: If you have an iPhone or Samsung, please follow the steps below:

Step 1: Go to your Instagram profile and click the three horizontal lines in the top right corner. Step 2: Click on 'Your Activity.'

Instagram Usage

Please present your Instagram use over the past week (7 days).

Section 2: If you have an Android such as Huawei, please follow the steps below:

Step 1: Go to phone settings, click 'Digital balance'

Step 2: Click on 'More'

Step 3: Click on 'Instagram'

11

Attach a screenshot of your Instagram use in the past week (daily average/last 7 days)

*If you experience difficulty uploading the screenshot click the three horizontal dots in the top right corner of this form and relocate to Google Chrome or refresh the page

Ignore the "non-anonymous question" message, the settings have been altered to \underline{not} display personal information

*

Rosenberg's (1965) RSES was used to measure global self-esteem (see Appendix G). This 10-item scale is answered via a 4-point Likert scale, with degree of agreement ranging from (1) strongly agree to (4) strongly disagree. A higher score indicates higher global self-esteem. Examples of the questions asked include: 'On the whole, I am satisfied with myself' and five questions are reversed scored. This scale had high reliability (α =0.89) similar to Blachnio et al. (2016) (α =0.83). (see Appendix H).

Diener et al. (1985) SWLS was used to measure life satisfaction (see Appendix I). This 5-item scale is answered via a 7-point Likert scale, ranging from (1) strongly disagree to (7) strongly agree. This scales scoring system affirms that the higher one's score the higher their life satisfaction. Examples of the questions asked include: 'In most ways, my life is close to my ideal.' This scale had high reliability (α =0.81) identical to Blachnio et al. (2016) (α =0.81). (see Appendix J).

2.4 Ethics

The participants were treated in accordance with the ethical standards of the Psychological Society of Ireland (PSI, 2019). The Department of Technology and Psychology Ethics Committee (DTPEC) from IADT approved the study before the recruitment of participants (see Appendix A). An amber ethics application was approved prior to the pilot study (see Appendix A).

2.5 Pilot Study

Following ethical approval, participants (N=4) that belonged to the target population were recruited to assess completion time and any potential problems. The pilot study illustrated the need to be clearer about creating the participants' self-identification codes. The pilot study also illustrated the need to update the Instagram usage instructions. These issues were amended, ensuring that the questionnaire-based survey was sufficient for data collection.

2.6 Procedure

The participants were provided with a link or QR code which transferred them to the information sheet. The information sheet outlined the specific aims of the study, and what taking part entailed. The participants were then asked to tick boxes indicating informed consent and to create a unique self-identification code. The participants were then brought to the demographic section and asked to state their gender and age. The participants were then provided instructions on accessing their Instagram use over the last seven days. The participants were subsequently asked to attach a screenshot of their Instagram use. The participants then completed the RSES and SWLS before being debriefed and thanked.

3. Results

3.1 Overview of Results

The factor variables in this correlational study were self-esteem and life satisfaction. The target variable was Instagram use. IBM SPSS statistics version 27 was utilised to examine the relationship between Instagram use, self-esteem and life satisfaction (see Appendix L). The relationship between Instagram use and self-esteem and the relationship between Instagram use and life satisfaction were examined with Spearman rank-order correlations. The relationship between self-esteem and life satisfaction was examined with a Pearson product-moment correlation.

3.2 Descriptive Statistics

Table 1

Descriptive statistics

	N	Mean	Std. Deviation
Instagram Use	103	47.98	37.617
Self-Esteem	103	26.27	6.325
Life Satisfaction	103	21.72	5.915
Valid N (listwise)	103		

3.3 Inferential Statistics

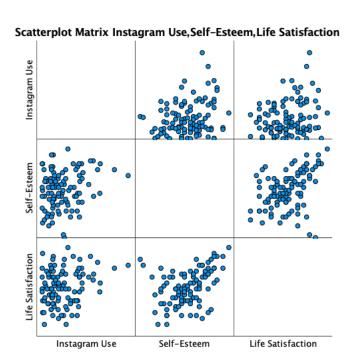
The initial statistical analyses revealed that there was no significant correlation between the factor variables, self-esteem and life satisfaction and the target variable, Instagram use. This resulted in the anticipated multiple linear regression analysis being replaced with three correlational tests.

3.3.1 Assumptions

Preliminary analyses were conducted on the Spearman rank-order and Pearson product-moment correlational tests to ensure that assumptions were met. Two Spearman rank-order correlational tests were utilised as a result of Instagram use not being normally distributed (see Appendix K). The Spearman rank-order correlation

assumptions were met, including the assumption of paired observations (see Table 1). Moreover, the variables were measured on a continuous scale, and the relationship between Instagram use and self-esteem and the relationship between Instagram use and life satisfaction were monotonic (see Figure 3). The relationship between self-esteem and life satisfaction was explored with a Pearson product-moment correlation as the assumption of normality was not violated in either variable, as indicated by Shapiro-Wilk's test (see Appendix K). The remaining Pearson product-moment correlation assumptions were also met, namely the assumption of paired observations (see Table 1), the assumption of linearity (see Figure 4), the assumption of the variables being measured on a continuous scale, and the absence of significant outliers. Two data sets were removed following the creation of a scatterplot (see Appendix N). These data sets were significant outliers that would have compromised the other data if not removed before the correlational analyses.

Figure 3
Scatterplot matrix



Note. The scatterplot matrix above illustrates the relationship between Instagram use, self-esteem and life satisfaction.

3.3.2 Correlational Analyses

Two Spearman rank-order correlations and one Pearson product-moment correlation were utilised to examine the relationship between Instagram use, self-esteem and life satisfaction. An alpha level of .05 was utilised.

3.3.3 Summary of Results

The first hypothesis stated that there would be a significant negative correlation between the students' Instagram use and self-esteem. This hypothesis was not accepted (see Table 2). There was no statistically significant correlation between the students' Instagram use and self-esteem, rs(101) = .180, p = .070.

 Table 2

 Spearman rank-order correlations

			Instagram	Self-Esteem	Life
			Use		Satisfaction
Spearman's	Instagram	Correlation	1.000	.180	.164
rho	Use	Coefficient			
		Sig. (2-		.070	.098
		tailed)			
		N	103	103	103
	Self-Esteem	Correlation	.180	1.000	.443**
		Coefficient			
		Sig. (2-	.070		<.001
		tailed)			
		N	103	103	103
	Life	Correlation	.164	.443**	1.000
	Satisfaction	Coefficient			
		Sig. (2-	.098	<.001	
		tailed)			
		N	103	103	103

^{**.} Correlation is significant at the 0.01 level. (2-tailed).

Note. The table above illustrates Instagram use's non-significant correlation with self-esteem and life satisfaction.

The second hypothesis stated that there would be a significant negative correlation between the students' Instagram use and life satisfaction. This hypothesis was not accepted (see Table 2). There was no statistically significant correlation between the students' Instagram use and life satisfaction, rs(101) = .164, p = .098.

The third hypothesis stated that there would be a significant positive correlation between the students' self-esteem and life satisfaction. This hypothesis was accepted (see Table 3). There was a statistically significant, strong positive correlation between the students' self-esteem and life satisfaction, r(99) = .521, p < .001, with self-esteem explaining 27% of the variation in life satisfaction (see Figure 4).

 Table 3

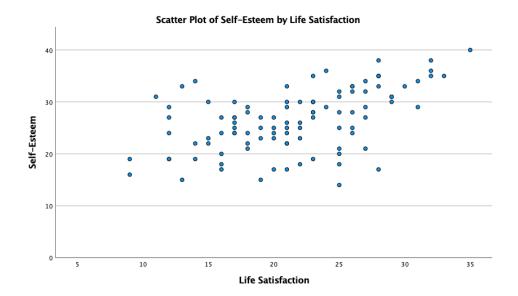
 Pearson product-moment correlation

		Self-Esteem	Life Satisfaction
Self-Esteem	Pearson Correlation	1	.521**
	Sig. (2-tailed)		<.001
	N	101	101
Life Satisfaction	Pearson Correlation	.521**	1
	Sig. (2-tailed)	<.001	
	N	101	101

^{**.} Correlation is significant at the 0.01 level (2-tailed).

Note. The table above illustrates the significant, strong positive correlation between self-esteem and life satisfaction.

Figure 4
Scatterplot displaying the linear relationship between self-esteem and life satisfaction



4. Discussion

4.1 Overview of Findings

The present study examined the relationship between Instagram use, self-esteem and life satisfaction. The results illustrated that students' Instagram use was not correlated with their self-esteem or life satisfaction. However, the results illustrated that students' self-esteem and life satisfaction were correlated with one another.

4.2 Discussion of Findings

Hypothesis 1 stated, that there would be a significant negative correlation between the students' Instagram use and self-esteem, and this hypothesis was rejected. The present study reported no significant relationship between SNS use and self-esteem contradicting previous research (Kalpidou et al., 2011; Faraon & Kaipainen, 2014; Malik & Khan, 2015; Andreassen et al., 2017; Gonzales & Hancock, 2011; Saiphoo et al., 2020). However, these studies (Kalpidou et al., 2011; Faraon & Kaipainen, 2014; Malik & Khan, 2015; Andreassen et al., 2017; Gonzales & Hancock, 2011; Saiphoo et al., 2020) did not specifically examine Instagram use and incorporated non-Irish based samples. Moreover, the aforementioned studies examined SNS use through self-report measures perhaps explaining the present study's contradictory finding.

However, the absent correlation between Instagram use and self-esteem in the present study supports other research (Stapleton et al, 2017; El Khouly, 2018; Kalinina, 2019). Although Stapleton et al. (2017) examined Instagram use through self-reported measures their results mirror that of the present study, insinuating that unlike other SNSs Instagram use does not correlate with self-esteem. El Khouly (2018) and Kalinina (2019) also examined Instagram use through self-reported measures and reported no correlation between Instagram use and self-esteem. These results suggest that self-reported Instagram use may be more reliable than the literature suggests (Andrews et al., 2015; Scharkow, 2016; Stapleton et al., 2017).

Hypothesis 2 stated there would be a significant negative correlation between the students' Instagram use and life satisfaction, and this hypothesis was rejected. The present study reported no significant relationship between SNS use and life satisfaction, contradicting previous research (Blachnio et al., 2016; Masoed et al., 2021; Valenzuela et al., 2009). However, these studies (Blachnio et al., 2016; Masoed et al., 2021; Valenzuela et al., 2009) did not specifically examine Instagram use, utilised non-Irish based samples and examined SNS use through self-reported measures perhaps explaining the present study's contradictory finding.

However, the absent correlation between Instagram use and life satisfaction in the present study supports Kersebaum (2020) results. Kersebaum (2020) reported no correlation between Instagram use and life satisfaction. The results of Kersebaum's (2020) study once more indicate that self-reported Instagram use is perhaps not as unreliable as proposed in the literature. Kersebaum's (2020) results were thought to be influenced by the Covid-19 pandemic, with participants over-reporting their Instagram use. However, the results of the present study indicate that this was likely not the case.

Hypothesis 3 stated that there would be a significant positive correlation between the students' self-esteem and life satisfaction, and this hypothesis was accepted. This finding corresponds with the literature (Moksnes & Espnes, 2013; Hawi & Samaha, 2017; Szcześniak et al., 2021). The present study examined self-esteem and life satisfaction through the RSES and SWLS, once more corresponding with the literature (Moksnes & Espnes, 2013; Hawi & Samaha, 2017; Szcześniak et al., 2021). However, although these scales are valid and Instagram use was measured through non self-reported means some potential confounding variables exist. For example, Instagram use was only measured on participants' smartphones. Therefore, restricting the role of Instagram use in the relationship between self-esteem and life satisfaction to be truly uncovered.

4.3 Strengths and Weaknesses of the Present Study

The present study's contribution to research on the relationship between SNS use, self-esteem and life satisfaction is one of its strengths. The present study's contribution to this topical area is unique through its utilisation of screenshots to accurately measure Instagram use. The examination of Instagram use in the present study contributes knowledge to an underexamined SNS (Sherlock & Wagstaff, 2019).

The present study also contributes knowledge to an underexamined sample of Irish based college students. Moreover, the present study's online questionnaire-based survey contained reliable scales and was accessible on phones and laptops.

The present study also contained weaknesses such as its restricted and unbalanced sample obtained through convenience and snowball sampling. The participants were students from one institution, which was noted as a limitation in previous research (Malik & Khan, 2015; Hawi & Samaha, 2017). Although the sample was not small it contained an unbalanced gender distribution. The participants were 30% male, 62% female and 8% individuals that identified as neither male nor female. However, Sherlock and Wagstaff (2019) affirmed that Instagram is predominantly utilised by females indicating that the present study's sample may be representative. The utilisation of Microsoft Forms was also a weakness as it only allows individuals within one's organisation to upload screenshots. As a result, the participants had to sign in with their college emails to participate. The sole examination of Instagram use on smartphones was another weakness of the present study. The present study's correlational design also meant that causality could not be determined.

4.4 Theoretical and Practical Implications

The present study contributes to research on the relationship between SNS use, self-esteem and life satisfaction. The present study was one of the first to examine Instagram use through non self-reported measures in this context and did so with an underexamined sample. The rejection of the present study's first hypothesis contradicts Cooley's (1902) looking-glass self theory and Mead's (1934) symbolic interactionism theory. The present study reported no significant relationship between Instagram use and self-esteem. Cooley's (1902) and Mead's (1934) theories indicate that more SNS use enables more opportunities to interact with others resulting in the manipulation of individuals' self-esteem. Concerning life satisfaction, the rejection of the second hypothesis contradicts Festinger's (1954) social comparison theory. This hypothesis insinuates that more Instagram use will result in more exposure to others' idealised images, likely resulting in lower life satisfaction. This was not supported in the present study as no relationship was found between Instagram use and life

satisfaction. However, the rejection of the present study's first and second hypothesis does not mean that Instagram has no impact on the well-being of Irish based college students. The acceptance of the third hypothesis supports Campbell's (1981) affirmation that self-esteem contributes to life satisfaction and supports previous literature (Moksnes & Espnes, 2013; Hawi & Samaha, 2017; Szcześniak et al., 2021). The significant relationship between self-esteem and life satisfaction reported in the present study illustrates the importance of maintaining high levels of self-esteem. However, the role of Instagram use in this relationship was not significant. The results of the present study may reduce concerns associated with high SNS use and highlight the importance of maintaining high self-esteem levels (Huang, 2017).

4.5 Future Research

The Instagram specific studies (Stapleton et al., 2017; El Khouly, 2018; Kalinina, 2019; Kersebaum, 2020) reported no correlation between Instagram use and self-esteem and Instagram use and life satisfaction. This illustrates the need for more research to determine if Instagram use does not correlate with self-esteem and life satisfaction in other samples. As Instagram is utilised worldwide future researchers could partially replicate the present study with less homogenous samples. Future researchers could also assess the reliability of self-reported Instagram use and utilise participants that only use Instagram on their smartphones. The utilisation of such participants would mean that screenshots of Instagram use would not be impacted by the potential confounding variable in the present study. The conduction of experimental research would also enable cause and effect to be determined. Kersebaum (2020) affirmed that SNS use is expected to rise during the Covid-19 pandemic, encouraging future researchers to examine Instagram usage throughout the pandemic. The mixed results regarding SNSs relationship with self-esteem and life satisfaction encourages future researchers to utilise screenshots and reassess these relationships across various SNSs. This would help determine if Instagram use relates to self-esteem and life satisfaction differently than other SNSs. The results of the present study suggest that self-reported Instagram use is not as unreliable as the literature suggests, however, more research is needed to support such suggestions. Moreover, Instagram use ranged from 1-195 minutes encouraging future researchers to examine other factors related to such discrepancies.

4.6 Conclusion

In conclusion, the present study filled several gaps in the literature. The present study examined the underexamined relationship between Instagram use, self-esteem and life satisfaction using non self-reported measures of use. The findings contradict and support previous research indicating that further research is required. The absent correlation between Instagram use and self-esteem and Instagram use and life satisfaction in the present study suggests that Instagram is perhaps not as detrimental as other SNSs (Kalpidou et al., 2011; Faraon & Kaipainen, 2014; Malik & Khan, 2015; Andreassen et al., 2017; Blachnio et al., 2016; Masoed et al., 2021), however, more research is needed to support such suggestions. The present study's findings complement previous Instagram specific research, indicating that self-reported Instagram use is more reliable than the literature suggests. However, the utilisation of a student sample restricts the generalisability of the findings.

Nevertheless, the present study's findings are of particular interest to Irish based college students who use Instagram, concerned parents and future researchers.

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6. Appendices

6.1 Appendix A: Ethics Application and Approval

IADT Department of Technology and Psychology Ethics Committee (DTPEC) Application Form 2021-2022

Instructions:

- Please read all sections carefully, include all of the information relevant to your project, and include all necessary appendices.
- 2. All students must complete Sections 1, 2, 3, and 4. You will also need to complete at least one other section, depending on the type of research that you plan to do.
- 3. Email the completed form to your supervisor for approval. They will then complete Section 0 below.
- 4. Your supervisor will then forward the application to the ethics committee.
- If your application is under the Red Route, then you may also be required to submit four printed copies of your application (including all appendices). You will be advised closer to the deadline if this is necessary or not.
- If your study changes from how you have described it in this form then you will need to reapply for approval from the DTPEC. The DTPEC does not guarantee that a revised project will be approved, even if the original project was approved.
- All communication between students and the DTPEC will occur via the student's project supervisor.
- The DTPEC will consider all of the information provided in the form when making their decision. Incomplete forms (including forms which do not include all of the necessary Appendices) will be rejected.
- If the DTPEC's decision is that a revised application must be made then they will provide a list
 of required changes which are necessary to ensure participant wellbeing. Even if all of these
 are followed, the DTPEC makes no commitment to approve a revised application.
- 10. It is highly recommended that 'Red Route' students continue to formulate ideas for projects which fit the criteria for 'Green Route' and 'Amber Route' submissions until they are advised that their application has been approved. This is to ensure that the student can still complete the module, even if their 'Red Route' project does not receive approval from the DTPEC.
- 11. There is an obligation on the researcher to bring to the attention of the DTPEC any issues with ethical implications not clearly covered by the checklist in Section 6 of this form.
- 12. 'Signatures' may be typed, scanned in, or digitally signed.

Section 0: For Completion by the Supervisor I confirm that this application to the DTPEC by _____Stuart Kavanagh_____ accurately reflects all of the ethical implications in the project. Application type (tick all that apply for mixed methods): Green Route _____ Amber Route _____ Red Route _____ Signed ____Hannah Barton______ Date: Nov. 28th 2021

DL825 Year 4 MRP Green and Amber Ethics Applications December 2021

The following Ethics applications have been approved:

Stuart Kavanagh	
Stuart Kavanagh	
	Stuart Kavanagh

6.2 Appendix B: Information Sheet

Information Sheet

Title of project: The Link Between Instagram Use, Self-Esteem and Life Satisfaction-A Correlational Study

You are being invited to take part in the research entitled "The Link Between Instagram Use, Self-Esteem and Life Satisfaction-A Correlational Study." This project is being undertaken by Stuart Kavanagh for our major research project as part of the BSc in Applied Psychology, IADT.

Before you decide whether you wish to take part, it is important for you to understand why this research is being done and what it will involve. Please take time to read this information carefully and discuss it with someone you trust. If there is anything that is unclear or if you would like more information please ask, our contact details are at the end of this information sheet. Thank you for reading this.

What is the purpose of the project?

The rise in Instagram use illustrates the need for research regarding its relationship with well-being. The purpose of this research is to examine the relationship between Instagram use, self-esteem and life satisfaction. This topic has been previously explored with self-reported measures of Instagram use which is an unreliable process. The present study will utilise non-identifiable screenshots of time spent on Instagram to overcome this limitation. Moreover, the relationship between self-esteem and life satisfaction has not been explored in relation to Instagram use. The participants will be students from IADT, assessed with valid scales, namely the Rosenberg Self-Esteem Scale and the Satisfaction with Life Scale. This research aims to provide beneficial information to social networking site users and programmers.

Why are you being invited to take part?

You are being invited to take part in this study as Instagram is popular among college students. Moreover, a lack of Instagram specific research has been conducted in Ireland.

What is involved?

If you choose to participate, you will be asked to complete an online questionnaire-based survey by the researcher, Stuart Kavanagh, on Microsoft Forms. The initial questions will be demographic (gender and age) and the subsequent questions will involve the studies variables (Instagram use, self-esteem and life satisfaction). The questionnaire-based survey will take approximately 6 minutes to complete. It is advised that you complete this study on a mobile phone.

Do I have to take part?

You are free to decide whether you wish to take part or not and this will not impact your marks, assessments or future studies. If you do decide to take part, you will be asked to sign a consent form that lets us know you have read this information sheet and understand what is involved in the research. You are free to withdraw from this study at any time and without giving reasons.

tion 2

Information Sheet

What are the disadvantages and risks (if any) of taking part?

The questionnaire-based survey will examine self-esteem and life satisfaction, thus, there is a possibility that it may make you uncomfortable. Therefore, uncomfortable questions can be avoided. The questionnaire-based survey is short in length and can be completed any time before the set date.

What are the possible benefits of taking part?

We cannot promise that the study will help you, but the information obtained will contribute to the current understanding of the relationship between Instagram use, self-esteem and life satisfaction.

How will my information be used?

The collected data will be anonymised and combined with other participants to answer the proposed hypotheses through statistical analyses. No individual's data will be identifiable in the final report. The results of this analysis will be reported in the thesis for the BSc in Applied Psychology in the Dun Laoghaire Institute of Art, Design & Technology. This can be requested through the library at IADT, or by emailing Mooth70674@student.iadt.ie

or hannah.barton@iadt.ie. This study may also be published in an academic journal article and may be written about for blog posts or media articles and these can be requested from the researcher.

How will my data be protected?

Under the EU General Data Protection Regulation (GDPR) the legal basis for collecting data for scholarly research is that of public interest. The regulations regarding the protection of your data will be followed. Only data which is needed for analysis will be collected. By giving your consent to take part in the study you are consenting to the use of your data as detailed in this information sheet.

The data will be retained by the researcher for at least one year, and may be retained for up to 7 years if the results of the study are published in certain capacities (e.g. in a journal article). There is also a possibility that the fully anonymised dataset may be submitted to a journal and made available to other researchers and academics worldwide for verification purposes, but if this occurs it will be ensured that you are not identifiable from the data.

As the supervisor on this project, I, Hannah Barton, am responsible for ensuring that all datasets will be stored in accordance with GDPR regulations and those which are not submitted to a journal will be fully deleted on or before 10/02/2029.

Only the researcher and supervisor of the study will have access to your data. The data will be stored securely on a password protected computer. The data protection officer in IADT will be informed immediately if there is a data breach. All participant's anonymity will remain intact and will be coded with their initials and the last three digits of their phone number. The data will be securely disposed of after 7 years of the data collection.

You will find contact information for IADT's Data Protection Officer, Mr Bernard Mullarkey, and more information on your rights concerning your data at https://iadt.ie/about/your-rights-entitlements/gdpr/

Information Sheet

Who has reviewed the study?

This study has been approved by the Department of Technology and Psychology Ethics Committee (DTPEC).

What if you have any questions or there is a problem?

If you have a concern about any aspect of this study, you may wish to speak to the researcher(s) who will do their best to answer your questions. You should contact Stuart Kavanagh at Moo170674@student.iadt.ie or their supervisor Hannah Barton at (01) 239 4000 or hannah.barton@iadt.ie.

Thank you for taking the time to read the information sheet.

Date

10th January 2022 Stuart Kavanagh

6.3 Appendix C: Consent Form

Consent Form



I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions. *

yes

2

I understand that my participation is voluntary and that I am free to withdraw at any time. *

yes

3

I understand that data collected about me during this study will not be identifiable when the research is published. *

I am over 18 *
yes
I agree to take part in this study *
○ yes
I have an Instagram account *
yes
I agree to upload a screenshot of my weekly Instagram use *
○ yes

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Please create a unique self-identification code to help identify you, should you wish to withdraw your data from the study (i.e. your initials and the last 3 digits of your phone number). \ast

Enter your answer

6.4 Appendix D: Debrief Document

Debrief

Title of project: The Link Between Instagram Use, Self-Esteem and Life Satisfaction-A Correlational Study

Name of researcher: Stuart Kavanagh

Thank you very much for taking part in this research study.

This study is designed to investigate the relationship between Instagram use, self-esteem and life satisfaction. This study will contribute knowledge to the field and do so with an Irish sample. If you wish to withdraw your data from the study please contact the researcher or the study's supervisor before 10/02/2022.

Withdrawal information

If you have any questions about this study, or if you would like to withdraw your data from the study, please contact the researcher or supervisor at N00170674@student.iadt.ie or hannah.barton@iadt.ie. In your email let them know your unique ID code which was created with your initials and the last three digits of your phone number. If you submit a request for data removal, all data collected from you will be securely deleted. You will be able to remove your data from the study until 10/02/2022 when the data will be combined and analysed. Data removal will not be possible after that date. Please keep a copy of this information in case you wish to remove your data after leaving this screen.

Data protection

Your data will be treated according to GDPR regulations. You will find contact information for IADT's Data Protection Officer, Mr Bernard Mullarkey, and more information on your rights concerning your data at https://iadt.ie/about/your-rights-entitlements/gdpr/

Support resources

If you have been affected by the content of this study in any way, the organisations below may be of assistance:

IADT Student Counselling:

studentcounselling@iadt.ie

Aware:

www.aware.ie or phone 1800 80 48 48

Samaritans:

www.samaritons.org or phone 116 123

Pieta House:

www.pieta.ie or phone 1800 247 247

Thank you again for taking the time to participate in this research.

6.5 Appendix E: Demographic Questions

What is your gender? * Male Female Other	Demographic Questions		
FemaleOther	_		
10	Female		
What is your age in years? *	_		

6.6 Appendix F: Instagram Usage Instructions

Instagram Usage

Please present your average Instagram use over the past week (7 days).

Section 1: If you have an iPhone or Samsung, please follow the steps below:

Step 1: Go to your Instagram profile and click the three horizontal lines in the top right corner.

Step 2: Click on 'Your Activity.'

Take a screenshot of your "daily average"



Thu

Fri

Sat

Today

Instagram Usage

Mon

Please present your Instagram use over the past week (7 days).

Section 2: If you have an Android such as Huawei, please follow the steps below:

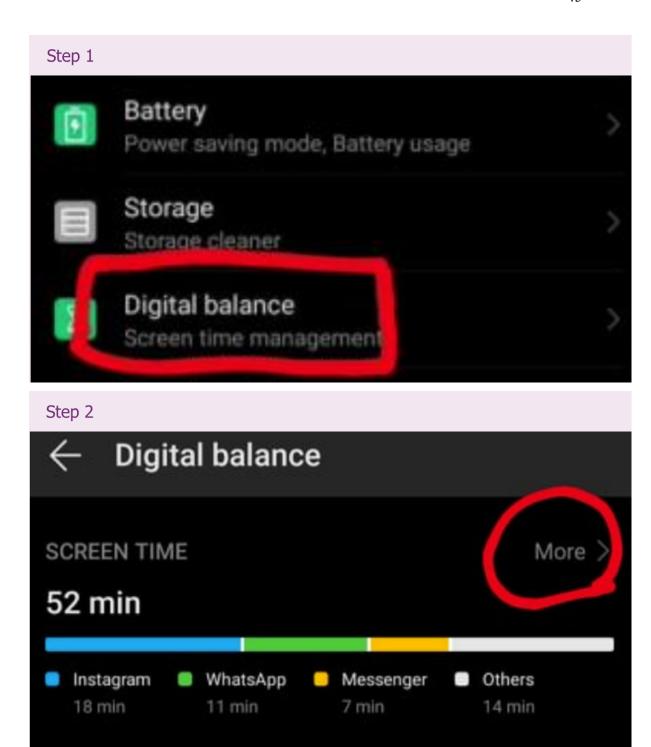
Wed

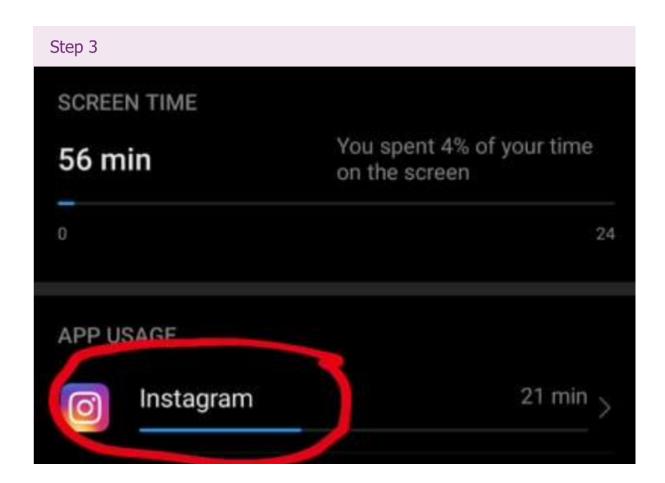
Step 1: Go to phone settings, click 'Digital balance'

Tue

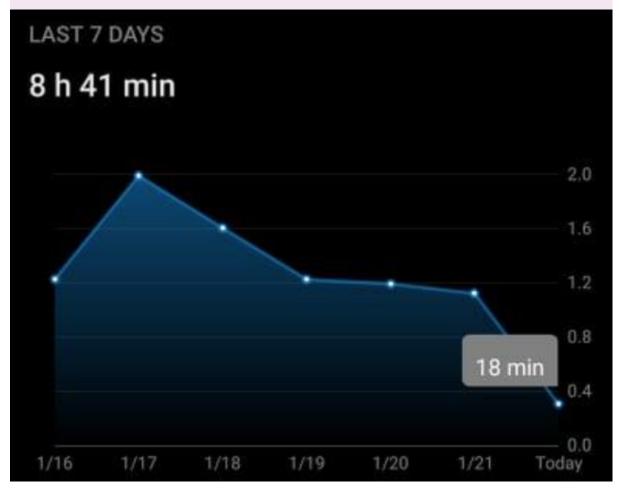
Step 2: Click on 'More'

Step 3: Click on 'Instagram'





Take a screenshot of your time on Instagram in the last 7 days



11

Attach a screenshot of your Instagram use in the past week (daily average/last 7 days)

*If you experience difficulty uploading the screenshot click the three horizontal dots in the top right corner of this form and relocate to Google Chrome or refresh the page

Ignore the "non-anonymous question" message, the settings have been altered to <u>not</u> display personal information

*

↑ Upload file

File number limit: 1 Single file size limit: 1GB Allowed file types: PDF,Image

6.7 Appendix G: Rosenberg (1965) Self-Esteem Scale

Rosenberg Self-Esteem Scale

Please record the appropriate answer for each item, depending on whether you strongly agree, agree, disagree, or strongly disagree with it.

- 1 = Strongly agree
- 2 = Agree
- 3 = Disagree
- 4 = Strongly disagree

12

On the whole, I am satisfied with myself

- 0 1
- 2
- 3
- 0 4

13					
At ti	imes I think	I am	no go	od at a	II

O 1

O 2

3

0 4

14

I feel that I have a number of good qualities

O 1

O 2

3

I am able to do things as well as most other people
O 1
O 2

I feel I do not have much to be proud of

I certainly feel useless at times
O 1
O 2
○ 3
O 4
I feel that I'm a person of worth, at least on an equal plane with others
O 1
O 2
○ 3

I wish I could have more respect for myself
O 1
O 2
O 3
O 4
All in all, I am inclined to feel that I am a failure
O 1
O 2
O 3
O 4
I take a positive attitude toward myself
O 1
O 2
3
O 4

6.8 Appendix H: Rosenberg (1965) Self-Esteem Scale Reliability

Case Processing Summary

		N	%
Cases	Valid	103	100.0
	Excludeda	0	.0
	Total	103	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.894	.896	10

Item Statistics

	Mean	Std. Deviation	N
SE1	2.62	.887	103
SE2	2.24	.944	103
SE3	3.14	.829	103
SE4	2.94	.752	103
SE5	2.70	.850	103
SE6	2.10	.846	103
SE7	2.92	.825	103
SE8	2.12	.983	103
SE9	2.91	.940	103
SE10	2.62	.909	103

Inter-Item Correlation Matrix

	SE1	SE2	SE3	SE4	SE5	SE6	SE7	SE8	SE9	SE10
SE1	1.000	.380	.631	.525	.472	.376	.549	.366	.559	.648
SE2	.380	1.000	.308	.283	.410	.572	.327	.392	.565	.405
SE3	.631	.308	1.000	.674	.560	.233	.704	.269	.581	.603
SE4	.525	.283	.674	1.000	.433	.286	.562	.341	.506	.599
SE5	.472	.410	.560	.433	1.000	.423	.512	.336	.592	.498
SE6	.376	.572	.233	.286	.423	1.000	.179	.552	.393	.405
SE7	.549	.327	.704	.562	.512	.179	1.000	.277	.535	.614
SE8	.366	.392	.269	.341	.336	.552	.277	1.000	.393	.434
SE9	.559	.565	.581	.506	.592	.393	.535	.393	1.000	.580
SE10	.648	.405	.603	.599	.498	.405	.614	.434	.580	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.631	2.097	3.136	1.039	1.495	.136	10
Inter-Item Correlations	.463	.179	.704	.524	3.921	.017	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
SE1	23.69	31.863	.695	.539	.880
SE2	24.07	32.691	.558	.472	.890
SE3	23.17	32.342	.698	.675	.880
SE4	23.37	33.451	.643	.526	.884
SE5	23.61	32.573	.651	.476	.883
SE6	24.21	33.699	.529	.513	.891
SE7	23.39	32.789	.650	.582	.883
SE8	24.19	32.903	.509	.373	.894
SE9	23.40	31.046	.733	.582	.877
SE10	23.69	31.236	.743	.597	.876

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
26.31	39.608	6.294	10

6.9 Appendix I: Diener et al. (1985) Satisfaction with Life Scale

Satisfaction with Life Scale

Please record the appropriate answer for each item, depending on whether you strongly agree, agree, disagree, or strongly disagree with it.

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Slightly disagree
- 4 = Neither agree nor disagree
- 5 = Slightly agree
- 6 = Agree
- 7 = Strongly agree

In most ways my life is close to my ideal
\bigcirc 1
O 2
○ 3
4
○ 5
O 6
O 7
The conditions of my life are excellent
O 1
O 2
23
3
34

I am satisfied with my life	
\bigcirc 1	
O 2	
○ 3	
O 4	
○ 5	
○ 6	
○ 7	
So far I have gotten the important things I want in life	
O 1	
O 2	
O 3	
O 4	
O 5	
O 6	
O 7	

1	$\boldsymbol{\mathcal{C}}$
_/	h

If I could live my life over, I would change almost nothing

- O 1
- O 2
- 3
- 0 4
- O 5
- 6
- O 7

7. Appendix J: Diener et al. (1985) Satisfaction with Life Scale Reliability

Case Processing Summary

		N	%
Cases	Valid	103	100.0
	Excludeda	0	.0
	Total	103	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.814	.820	5

Item Statistics

	Mean	Std. Deviation	N
LS1	4.09	1.422	103
LS2	4.72	1.498	103
LS3	4.55	1.601	103
LS4	4.64	1.420	103
LS5	3.72	1.833	103

Inter-Item Correlation Matrix

	LS1	LS2	LS3	LS4	LS5
LS1	1.000	.454	.599	.496	.367
LS2	.454	1.000	.650	.436	.342
LS3	.599	.650	1.000	.550	.491
LS4	.496	.436	.550	1.000	.379
LS5	.367	.342	.491	.379	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.344	3.718	4.718	1.000	1.269	.182	5
Inter-Item Correlations	.476	.342	.650	.308	1.900	.010	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
LS1	17.63	24.392	.611	.405	.777
LS2	17.00	23.961	.599	.435	.779
LS3	17.17	21.198	.762	.602	.727
LS4	17.08	24.641	.591	.363	.782
LS5	18.00	22.980	.492	.262	.820

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.72	34.989	5.915	5

7.1 Appendix K: Tests of Normality

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Instagram Use	103	100.0%	0	0.0%	103	100.0%

Tests of Normality

	Kolmogorov–Smirnov ^a			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Instagram Use	.129	103	<.001	.905	103	<.001	

a. Lilliefors Significance Correction

Case Processing Summary

	Cases						
	Valid		Miss	Missing		Total	
	N	Percent	N	Percent	N	Percent	
Self-Esteem	103	100.0%	0	0.0%	103	100.0%	
Life Satisfaction	103	100.0%	0	0.0%	103	100.0%	

Tests of Normality

	Kolmogorov-Smirnov ^a		Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.
Self-Esteem	.060	103	.200*	.988	103	.476
Life Satisfaction	.079	103	.110	.986	103	.342

- *. This is a lower bound of the true significance.
- a. Lilliefors Significance Correction

7.2 Appendix L: Correlational Analyses

Descriptive Statistics

	N	Mean	Std. Deviation
Instagram Use	103	47.98	37.617
Self-Esteem	103	26.27	6.325
Life Satisfaction	103	21.72	5.915
Valid N (listwise)	103		

Correlations

			Instagram Use	Self-Esteem	Life Satisfaction
Spearman's rho	Instagram Use	Correlation Coefficient	1.000	.180	.164
		Sig. (2-tailed)		.070	.098
		N	103	103	103
	Self-Esteem	Correlation Coefficient	.180	1.000	103 103
		Sig. (2-tailed)	.070		
		N	103	103	103
	Life Satisfaction	Correlation Coefficient	.164	.443**	1.000
		Sig. (2-tailed)	.098	<.001	1.000 .443** . <.001 103 103 .443** 1.000
		N	103	103	103

^{**.} Correlation is significant at the 0.01 level (2-tailed).

Descriptive Statistics

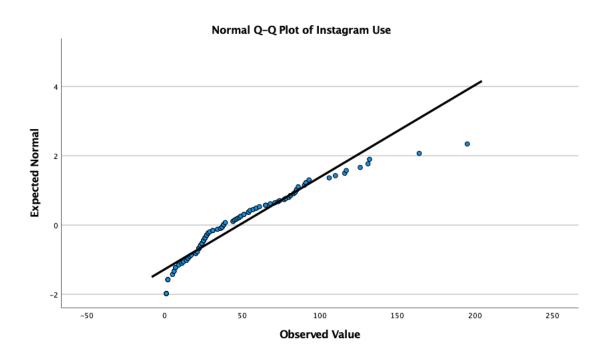
	Mean	Std. Deviation	N
Self-Esteem	26.58	5.977	101
Life Satisfaction	21.55	5.854	101

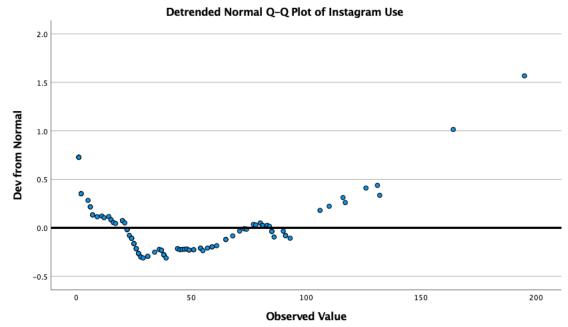
Correlations

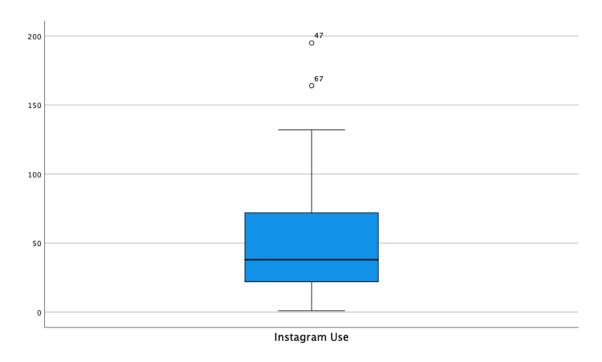
		Self-Esteem	Life Satisfaction
Self-Esteem	Pearson Correlation	1	.521**
	Sig. (2-tailed)		<.001
	N	101	101
Life Satisfaction	Pearson Correlation	.521**	1
	Sig. (2-tailed)	<.001	
	N	101	101

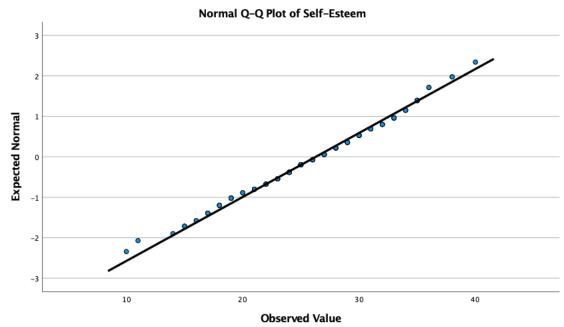
^{**.} Correlation is significant at the 0.01 level (2-tailed).

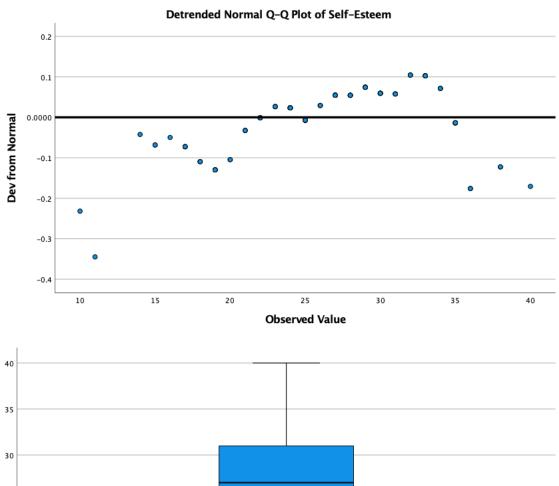
7.3 Appendix M: SPSS Plots





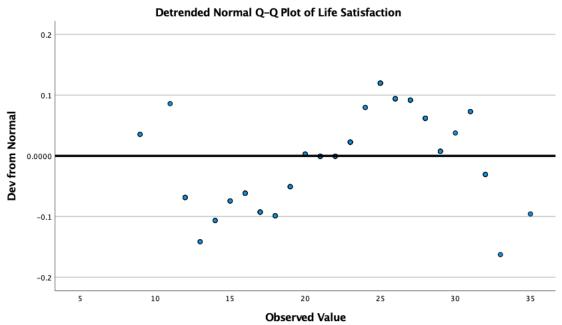


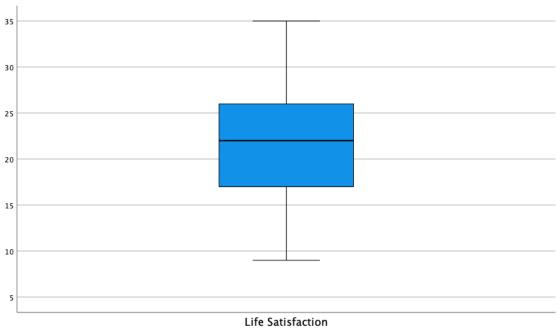




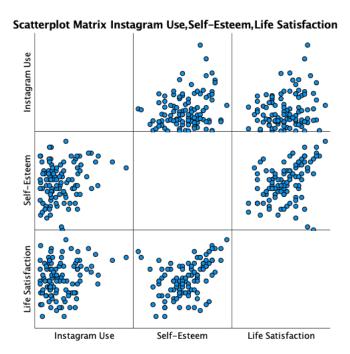
Self-Esteem







7.4 Appendix N: SPSS Scatterplots



Scatter Plot of Instagram Use by Self-Esteem

