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Social comparison; gender analysis, social media accounts, and instagram followers

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ABSTRACT

The use of social media is a popular communication tool for children and adolescents, but many adults also use it. This is because the fastest source of information today is social media, but from the many benefits there are also impacts that occur, students become less confident in their social environment, this condition is caused by social comparison, often comparing themselves with others when looking at the status of their friends. This study aims to analyze the conditions of social comparison of students based on gender, number of social media accounts, number of smartphones and number of Instagram followers. This research is a quantitative descriptive study obtained through random sampling. The sample in this study were 213 students from Madrasah Aliyah in Jakarta. Data was collected using the Social Comparison Scale (SCS) with 26 items in a five-point response format. The analysis technique used the item response theory (IRT) approach with the Rasch Model analysis. This research tested descriptive with the help of WINSTEPS Version 4.7.0. The results show that the social comparison tendency of Madrasah Aliyah students in the city of Jakarta is more towards positive social comparison or towards positive behavior, for example students more often compare their own achievements with their friends. In addition, students will more often compare themselves with others if they often see the status of friends who have joined to become their Instagram followers.



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Introduction

In recent years, social media usage has expanded dramatically and activities that were formerly conducted directly or in person have begun to transfer to social media (Sandjajaa & Syahputra, 2019). In 2017, the number of social networking site (SNS) users worldwide reached approximately 2.46 billion, and it is anticipated that by the end of 2021, there would be approximately 3.09 billion social media users globally (Statista, 2020). The following are facts on the monthly growth of social media: Facebook (FB) has 2.45 billion active users; Instagram (IG) has 1 billion active users (Statista, 2020). People tend to use social media because they receive something unique that they cannot receive elsewhere (Güneç, 2022).

Social media is an interactive form of communication that facilitates the development and dissemination of information, ideas, and other kinds of expression through virtual communities and networks (Ahn et al., 2021). Instagram is a free social networking site that allows users to submit and share photographs and videos via a mobile application. There are around 3.6 billion people who have access to the internet, and it is anticipated that this figure will continue to rise as the prevalence of mobile device usage continues to rise and social networking sites continue to grow in popularity (Kar, 2021). As of October 2020, Instagram has 1158 million active users globally, with 62.70% of users aged 18–34 and 120 million active users in India (Clement, 2020). Social media platforms like Instagram, Facebook, and Twitter have profoundly impacted the lives of young people (Lakhiwal & Kar, 2016).

More than ever, filters and other augmented-reality tools allow you to alter your facial features, causing you to reconsider your natural appearance. A previous study conducted by (Syahputra, Ifdil, et al., 2022) found that student narcissism was in the high category with a percentage value of 54.5%, and social media addiction was in the high category with a percentage value of 57.7%. An individual's self-confidence in their natural appearance and color is considerably diminished by the usage of filters, as they tend to think that they would appear unattractive or less attractive without them; this anxiety compels them to utilize filters in order to be socially acceptable. The phrase "social comparison" refers to the habit of using other people as sources of information in order to evaluate how well we are doing in contrast to others (ability comparison), or how we should behave, think, and feel (opinion comparison; Festinger, 1954). These comparisons supply us with knowledge about our own capabilities as well as the abilities, social position, and performance of other individuals, which enables us to traverse the social world in an efficient manner. In addition, having knowledge about other people and organizations has the ability to fulfill fundamental human wants, such as the desire for affiliation and the need for respect (Festinger, 1954).

It has been suggested that social comparison is a fundamental component of the evolution of human society (Baldwin & Mussweiler, 2018), that it is present even in young children (Steinbeis & Singer, 2013), and that it is widespread across all cultures. Both the selection of the comparison target (upward, which refers to a superior other, and downward, which refers to an inferior other) and the consequence of the comparison are essential components of the social comparison process (assimilation versus contrast). Assimilation, in its more specific sense, is when the self-evaluation of the comparer shifts towards the comparison target, becoming more positive after upward comparison and more negative after downward comparison (Verduyn et al., 2020).

On the other hand, contrast describes when the comparer's self-evaluation shifts away from the target of the comparison, turning more negative after an upward comparison and turning more positive after a downward comparison (Meier & Schäfer, 2018). Social comparisons are more likely when the comparison dimension is relevant to the self, and when the comparison target is similar to the self. Recent meta-analytic research shows that in offline contexts, individuals predominantly tend to compare themselves to someone who outperforms them in a contrasting manner, resulting in lowered self-evaluations, envy, and an overall worsened mood (Gerber et al., 2018).

In addition, self-evaluation motivates individuals to seek acceptance and comparisons with others who are similar, rather than unlike. Instead of models or celebrities portrayed on social media, peers serve as the key comparison targets (Tiggemann et al., 2018). People who frequently use social media may compare themselves to others to evaluate their thoughts and abilities. Social comparison and envy are predicted to result in depression (Keles et al., 2020). Self-comparison on social media can have detrimental impacts on physical and mental health, since it enables individuals to compare themselves and seek praise (Stefanone et al., 2011). There are negative impacts of exposure to thin-ideal media images provided in magazines or on television on the body dissatisfaction and disordered eating of adolescent and young adult women. Large amounts of likes, comments, and followers reduced face unhappiness for both thin-ideal and average photographs (Tiggemann et al., 2018). The number of followers, likes, and comments plays a significant role in social acceptance; if an individual has fewer followers, likes, and comments, they are more likely to believe that their peers do not socially accept them and to seek acceptance, which can lead to social comparison (Sharma et al., 2022). This study aims to analyze the conditions of social comparison of students based on gender, number of social media accounts, number of smartphones and number of Instagram followers.

Methods

Participants

This research is a quantitative descriptive study, the data obtained through random sampling. The target population is Madrasah Aliyah students in the city of Jakarta, taking samples through a scale spread from

online advertisements, social media, and professional organization meetings. The sample in this study were 213 students from Madrasah Aliyah in Jakarta City (sample details table 1).

Table 1. Characteristics of the Research Sample

Gender	Number of Social Media Accounts	Number of Smartphones	Number of Followers on social media
Male, $n = 67$	1 (1), n = 34	1 (O), n = 21	< 200 (1), n = 67
Female, $n = 146$	2(2), n = 56	2 (M), n = 192	< 300 (2), n = 30
	3(3), n = 47		< 400 (3), n = 19
	> 3 (4), n = 76		> 500 (4), n = 97

Measures

Social Comparison Scale (SCS)

The Social Comparison Scale (SCS) was developed from theory (Guyer & Vaughan-Johnston, 2018). The SCS is a 26-item scale that is answered in a five-point response format with a total score ranging from 26 to 130. An example of a statement on one item, "I compare my opinion with the opinions of others regarding the solution to the problem I am facing." Higher scores indicate student social comparison, this scale has acceptable reliability (Cronbach's of 0.78; item reliability at rasch 0.99) and satisfactory validity.

Data Analysis

The analysis technique used the item response theory (IRT) approach with the Rasch Model analysis, this research tested descriptive (Bond & Fox, 2015; Ifdil et al., 2018; Syahputra, Sandjaja, et al., 2022; Syahputra & Erwinda, 2020) with the help of WINSTEPS Version 4.7.0 (Linacre, 2011). To achieve the research objectives, there are several that will be analyzed, including: 1) descriptive test of Social Comparison of Madrasah Aliyah students; 2) Social Comparison conditions based on gender; and 3) Social Comparison conditions based on social media account data, 4) Social Comparison conditions based on the number of smartphones, and 5) Social Comparison conditions based on the number of friends on social media.

Results and Discussions

This study uses four analyses, including: 1) descriptive test of Social Comparison of Madrasah Aliyah students; 2) Social Comparison conditions based on gender; 3) Social Comparison conditions based on social media account data, 4) Social Comparison conditions based on the number of smartphones, and 5) Social Comparison conditions based on the number of friends on social media. Furthermore, the student Social Comparison descriptive test is presented in table 2.

Social Comparsion Descriptive Test for Madrasah Aliyah Students in Jakarta City

Table 2. Descriptive Test of Student Social Comparsion with Rasch

MEASURE		INFIT	INFIT	OUTFIT	OUTFIT	PTMAESUR				
(logit)	SCORE	MNSQ	ZSTD	MNSQ	ZSTD	CORR.	OBS	EXP	RMSR	Code
.82	629.0	.86	-1.82	.93	86	.08	45.5	33.5	.98	SC1
09	828.0	.80	-2.20	.81	-2.00	.25	49.8	37.6	.83	SC2
1.42	490.0	1.24	2.60	1.35	3.61	26	37.6	33.5	1.12	SC3
.67	664.0	1.06	.69	1.10	1.19	.19	33.3	34.2	1.08	SC4
10	829.0	.78	-2.50	.79	-2.22	.43	49.3	37.6	.82	SC5
21	849.0	.68	-3.67	.69	-3.46	.38	50.7	38.5	.74	SC6
1.12	559.0	1.55	5.76	1.68	6.79	05	31.9	33.0	1.31	SC7
03	817.0	1.09	.91	1.12	1.24	.57	40.8	37.4	.98	SC8
30	864.0	.74	-2.77	.71	-3.05	.68	46.0	38.8	.75	SC9
90	945.0	.80	-1.75	.69	-2.78	.65	70.4	51.7	.64	SC10
96	951.0	.68	-2.94	.58	-3.93	.66	77.0	52.7	.57	SC11
86	941.0	.78	-1.99	.72	-2.48	.61	66.7	50.3	.64	SC12
-1.03	958.0	.65	-3.14	.59	-3.74	.65	74.2	55.1	.55	SC13
53	899.0	.86	-1.35	.86	-1.28	.62	48.4	42.4	.75	SC14
35	872.0	1.21	1.94	1.20	1.80	.51	38.5	39.3	.95	SC15
35	873.0	.97	25	.94	53	.62	46.0	39.3	.85	SC16
.19	772.0	.88	-1.39	.91	96	.55	29.6	36.5	.93	SC17
.04	804.0	1.04	.49	1.03	.35	.54	37.1	37.3	.98	SC18
.40	728.0	1.20	2.22	1.24	2.52	.48	26.8	35.6	1.12	SC19

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MEASURE (logit)	SCORE	INFIT MNSO	INFIT ZSTD	OUTFIT MNSO	OUTFIT ZSTD	PTMAESUR CORR.	OBS	EXP	RMSR	Code
55	902.0	.77	-2.29	.68	-3.26	.74	61.0	44.2	.71	SC20
1.26	526.0	1.78	7.63	2.13	9.90	19	37.6	32.8	1.38	SC21
02	815.0	.74	-2.95	.76	-2.70	.57	41.8	37.4	.82	SC22
43	885.0	.75	-2.55	.70	-3.10	.65	54.5	41.2	.73	SC23
51	897.0	.84	-1.53	.74	-2.55	.69	55.9	42.4	.75	SC24
.69	660.0	1.48	5.02	1.57	5.81	.24	22.5	34.2	1.28	SC25
.62	677.0	1.90	8.58	1.98	9.10	06	26.3	34.3	1.45	SC26

Information:

MNSQ = Mean Square OBS = Observation ZSTD = Z-standard EXP = Expectation

PT Measur Corr. = Point Measure Correlation RMSR = Root Mean Square Residual

Table 2 shows good social comparison conditions, as evidenced by the tendency of the observation value for each item to be higher than the expected value. In addition, the item that students consider the most difficult to agree on is the item with the SC3 code which reads "I compare my opinion with that of other people regarding the solution to the problem I am facing" and for the item that students most often agree on in terms of social comparison is the item with the code SC13 which reads "When I see other people who can be responsible, I also want to be a responsible person" and SC20 which reads "When I see a friend who excels in learning I try to achieve like him". Based on the analysis of item responses, students more often compared their responsibilities and achievements with their friends, and the tendency of social comparisons among Madrasah Aliyah students in Jakarta city was towards positive social comparisons or towards positive behavior. Furthermore, to clarify the conditions of social comparison of students based on gender can be seen in Figure 1.

Social Comparison conditions based on gender

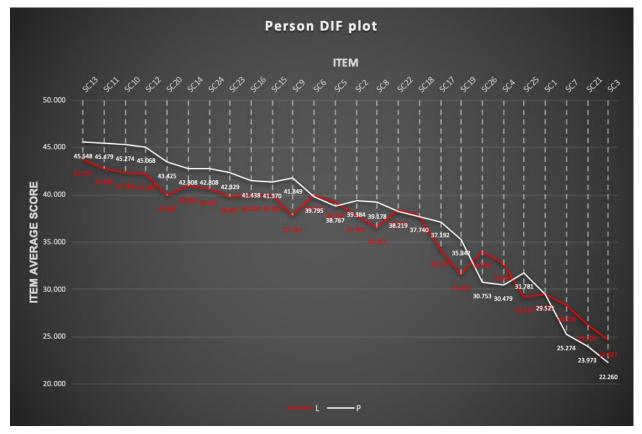


Figure 1. Gender data L (Male) & P (Female)

Female tend to do social comparison behavior or compare themselves with other people, while female's points are higher than male, including: SC2, SC8, SC9, SC10, SC11, SC12, SC13, SC14, SC15, SC16, SC17, SC19, SC20, SC23, SC24, and SC25. From this picture it is evident that female compare themselves more often with other people than male. To strengthen the results of this study, the following is shown in Figure 2

regarding social comparison based on the number of social media accounts. Social comparison of students based on the number of social media accounts owned by Madrasah Aliyah students shows that the number of accounts of three is more likely to experience social comparisons compared to students who have one or two accounts.

Social Comparison conditions based on social media account data

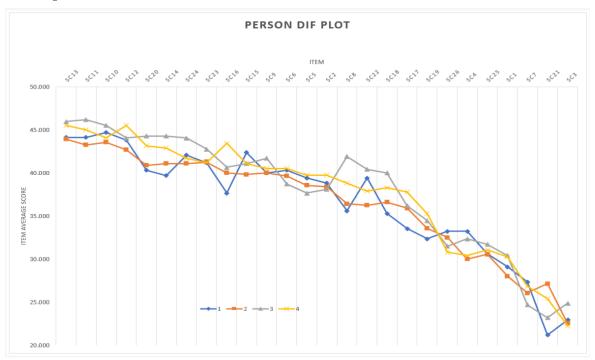


Figure 2. Social Media Account Data 1 (1 Akun); 2 (2 Akun); 3 (3 Akun); dan 4 (4 Akun)

Social Comparison conditions based on the number of smartphones



Figure 3. Data on the Number of Smartphones M (More than) & O (Only one)

The data shown in Figure 3 shows that the tendency for code M is higher than code O, meaning that students with more than one smartphone experience social comparison more often than students with only one smartphone.

Social Comparison conditions based on the number of friends on social media



Figure 4. Data on the Number of Friends on social media 1 (< 200); 2 (<300); 3 (<400); dan 4 (>400)

The conditions in the display of Figure 4 show harmony with other findings in Figures 2 and 3, meaning that students are increasingly doing social comparisons when they have many followers on Instagram compared to students who do not have many followers and this is interrelated with the number of smartphones and the number of social media accounts they have. Students will more often compare themselves with others if they often see the status of their friends who have joined to become their Instagram followers.

Based on the results of this study, students often compare their responsibilities and achievements with their friends, as well as the tendency of social comparisons among Madrasah Aliyah students in the city of Jakarta to be more towards positive social comparisons or towards positive behavior. Meier & Schäfer (2018) explained that even routine Instagram use can spark new insights and motivate people to grow and change in ways beyond their existing selves. This confirms the beneficial effects of inspiration on the well-being of Instagram users, which is consistent with the findings of broader studies on the topic (Lange & Crusius, 2015; Thrash et al., 2010). We discovered an upbeat connection between such "Instagram inspiration" and the emotional health of consumers and isolated a key psychological process underpinning creative motivation. Feelings of benign envy, which result from assimilative upward comparisons, make people more attuned to social cues about how to better themselves and draw closer to their peers. Positive motivating results, such as inspiration, can also be elicited by comparison to others (Meier & Schäfer, 2018) such that people take on new and improved ways of being (Ouwerkerk & Johnson, 2016). Individuals benefit much from inspiration because it defines a complicated intrinsic, yet stimulus-evoked approach motivation that animates them to go beyond who they already are (Thrash et al., 2010). In this study, we test the hypothesis that Instagram comparisons can boost happiness by stimulating a feeling of inspiration. We will argue that comparison on Instagram can lead to positive effects like inspiration after studying the methods and outcomes of comparison on social networking sites. Next, we'll discuss the concept of "malicious envy" (Lange & Crusius, 2015), as a possible

mechanism by which Instagram comparisons lead to real-world inspiration. There was a significant relationship between social comparison and inspiration, which was found to be entirely mediated by benign jealousy, resulting in an emotional upturn from assimilative comparison (Meier & Schäfer, 2018).

The findings show that women compare themselves more often with others than male. Male and female use the Internet equally on a daily basis. Male are more likely to be addicted to online gaming, porn sites, and online gambling, but female are more likely to be addicted to internet status updates. online conversation and shopping (Syahputra et al., 2019). Ozdemir et al. (2018) stated that female students in Turkey tend to have a higher level of nomophobia compared to males. Choliz (2012) stated that female are more dependent on smartphones than male. Wang et al. (2012) stated that the interpersonal relationships of female adolescents are higher than male adolescents.

Other findings show that students are increasingly doing social comparisons when they have a lot of followers on Instagram compared to students who don't have many followers and this is related to the number of smartphones and the number of social media accounts they have. Students will more often compare themselves with others if they often see the status of their friends who have joined to become their Instagram followers. A person's level of social acceptance can be measured in part by the number of people who follow, like, and comment on their social media posts. Those who have fewer followers, likes, and comments may feel less accepted by their peers and may engage in social comparison in an effort to gain acceptance from their peers (Sharma et al., 2022). Users of social media are more frequently confronted with the accomplishments rather than the shortcomings of their online relationships (Kross et al., 2013). This is due, in part, to the fact that social networking platforms make it so simple to present an idealized version of one's life. A lot of social networking sites, for instance, let users engage in asynchronous conversation, which gives them plenty of time to compose a witty remark or utilize photo filtering, which lets them further improve the aesthetic appeal of photographs that have already been carefully selected (Sesva et al., 2022). Social media have made it considerably easier for people to try to impress other people, and as a result, people are now more frequently exposed to idealized images of others, and they also share more frequently information that enhances their own self-image (Verduyn et al., 2020).

Conclusions

The results show that the tendency of social comparison among Madrasah Aliyah students in the city of Jakarta is more towards positive social comparison or towards positive behavior, for example students more often compare their own achievements with their friends, students are inspired by the behavior of their social media friends. Furthermore, social comparison is increasing when you have a lot of followers on Instagram, this is because comparisons often occur from the results of seeing stories or the status of friends on social media. In addition, students will more often compare themselves with others if they often see the status of their friends who have joined their Instagram followers. Based on the results of this study, it is hoped that positive social comparisons can be maintained or developed. This condition is good if it continues to develop in a positive direction, because students are motivated to do their best in positive terms. For further researchers, they can add other social variables to test the contribution of social comparison to students' motivation in learning.

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