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## Visual literacy study: influence of Instagram on interest in learning photography and its relation to gender

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### ABSTRACT

This visual literacy study aimed to investigate how Instagram influence students' interest in learning photography, with a focus on gender differences. Photography, being an integral part of visual art, produces artwork that appeals to many individuals. Therefore, an in-depth investigation was conducted on photography education, with the prevailing stigma surrounding it as a trivial and unpopular pursuit among students compared to scientific subjects. The extent of gender difference was also explored by challenging the assumption that the world of photography predominantly belongs to men. This quantitative study comprised students from Visual Arts Department at Universitas Negeri Semarang as respondents. Non-probability purposive sampling was adopted, enrolling a total of 100 qualified students. The results showed that Instagram positively and significantly influenced interest in learning photography. It also showed no gender disparity in influence of using Instagram as a supportive medium to enhance interest in learning. Instagram proved to be an effective medium for photography education, allowing students to showcase their work for others to appreciate. Essentially, the social platform served as an educational tool for students to experiment with photography. This study elaborated on the equal rights of both men and women to pursue photography education at the university level.

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### KEYWORDS

Visual literacy; Instagram; learning interest; photography; gender

## Introduction

The rapid development of social media is a crucial aspect of individual daily lives in the modern era (Lenhart et al. 2010), significantly influencing education and attracting attention (Tess 2013). Social media serves as an effective educational tool, fostering collaboration, learning, and information sharing (Kolhar, Kazi, and Alameen 2021). Originating in 2005, it was aimed at facilitating global media sharing and communication in the virtual world (Indika and Jovita 2017; Kaplan and Haenlein 2010). Sadaf, Newby, and Ertmer (2012) explored social media as a futuristic concept that could play an important role in classroom instruction. Moreover, modern learning has integrated mobile phones to offer

learners multiple media choices for accessing learning content (Prameswari et al. 2020a; Richardson and Lenarcic 2008), (Prameswari et al., 2020b; Yusuf, 2010) specifically smartphones (Alexanders 2004; Ismail 2015; Yilmaz 2016). Interaction in the learning process is also made more accessible via mobile phones and social media (Rodriguez 2011). As mobile devices are more flexible and personal, learners can access important information anytime and anywhere (Bester and Brand 2013; Gikas and Grant 2013).

Wilson (2020) stated that various social media platforms like Facebook, TikTok, X, Instagram, and YouTube are available for use. However, this study focused solely on Instagram platform. As a social medium, Instagram has enabled users to represent themselves and engage in virtual interactions (Prameswari et al. 2019; Sari 2017). Despite concerns about the emergence of the platform and being relatively new, its widespread use persists in Indonesia (Wiryohandoyo 2012), remaining current and functioning to build relationships or interaction networks (Prabowo and Arofah 2017). Beyond communication (Kirst and Stevens 2015; Ketari and Khanum 2013), Instagram also serves as an educational medium for stimulating interest (Mason 2006). These changes include cognition, affection, and conation or psychomotor aspects in the community (Prameswari et al. 2020; Yusuf 2010). Teachers in educational institutions play crucial roles in the continuity of learning, particularly in using Instagram as an educational tool (Prameswari, Suharto, and Prabowo 2017; Zhang 2013).

Photography is an integral part of visual art (Widodo 2008). The ease of capturing and sharing images on social media platforms like Instagram can significantly promote the development of visual literacy skills (Thelwall 2016). Photography is one of the key components in the domain of visual resources examined within the study of visual literacy (Chauvin 2003). It is essential to assess the interest of students in higher education settings toward studying photography, considering the evolving cultural landscape and the crucial role of the profession in the millennial era (Frosh 2015; Zhou & Guo, 2018). There appears to be gender-based inclination toward interest in photography. Historical data also depicted a close relationship between interest in photography and gender, which was evident from the historical identification of photography as a male-dominated sphere, devoid of any prominent female presence (Handayani 2017).

This study examined visual literacy within the domain of art education, particularly in the abstract form of social media like Instagram. While some previous studies have discussed learning interest and the use of Instagram in social media, none have specifically addressed its impact on the inclination to learn photography or investigated gender differences. For instance, Kurniawan (2018) explained that Instagram could stimulate motoric responses in learners. This was confirmed by Irwandani and Juariah (2017), who analyzed gender differences and showed that incorporating comics with Instagram could increase learning interest by serving as an alternative educational medium to stimulate students' engagement. Handayani (2017) examined the phenomenon of the 'male gaze' in photography, which elucidated gender disparities in photography interest. Similarly, Desy, Peterson, and Brockman (2011) investigated preferences of students for school subjects at both high school and college levels, shedding light on gender influence in determining interest in photography.

Historical data in previous studies have not elucidated the true correlation between interest in learning and gender. The existence of Instagram as a supportive medium and platform for photography creations can stimulate interest among both men and

women. Therefore, this study investigated the influence of Instagram on fostering interest in learning photography while considering gender differences. It also aimed to determine the divergence of interest between undergraduate and college students.

## Literature review

### *Instagram*

In the period of technological advancements, social media have become increasingly pervasive within the broader community (Kumar et al. 2016). Social media generally fulfill requirements of users for social interaction and serve as a means of communication (Yin et al. 2012). These platforms can also foster individual interest and serve educational purposes (Gensler et al. 2013; Lin, Venkataraman, and Jap 2013). Instagram as an application for free photo-sharing, is one of the most widely embraced social media platforms (Ahmadi 2008; Fitria 2015; Rahim, Erawan, and Alfando 2018) with a significant impact on lifestyle changes (Tariq et al. 2012). It also has a dual effect (Nesa 2014), with addiction being one of the adverse consequences (Alwagait, Shahzad, and Alim 2015). The proliferating use of Internet media has become integral to the economy and in meeting human needs (Kaplan and Haenlein 2010). With an increasing user base spanning teenagers (high school and university students), children, adults, and the elderly (Shin 2006), the proliferation of the medium has made both positive and negative information easily accessible to the entire community (Schivinski and Dabrowski 2014). Instagram as an informative tool, facilitates rapid connectivity and content dissemination, allowing potentially harmful content to be swiftly absorbed by users (Santoso, Baihaqi, and Persada 2017). Images also play a crucial role in communication within social media interactions on Instagram (Yoon and Chung 2016).

### *Interest in learning photography*

Photography is an activity of painting or drawing using light (Worobiec and Spence 2003). It includes conceptualizing a certain idea or theme and selecting specific objectives for representation (Soedjono 2006). Visual literacy constitutes the broad ability to use and interpret photography works (Spalter and van Dam 2008). Interest is a psychological state characterized by affective reactions and focused attention toward specific content with relative tendencies (Renninger and Hidi 2002). Low interest in learning can be influenced by self-ability and personal development (Pogacnik and Cigic 2006). Moreover, a decline in learning interest may stem from a lack of students' participation and engagement in educational activities (Ryan and Deci 2000). Students with low learning interest tend to disregard educational endeavors (Noels et al. 2000), showing the crucial role of teachers in stimulating curiosity and interest in learning (Carson and Chase 2009; Dörnyei 2003). Adopting an autonomous support style can also enhance interest by instilling a sense of responsibility in pursuing the learning process (De Jesus and Lens 2005).

The optimization of subjects plays a crucial role in the context of higher education. Photography stands out as a significant subject in academic discourse. While photography is quite popular for capturing the aesthetic essence of objects within a single frame, its precision is still inferior to exact sciences (Ryan 1994). Currently, the accessibility and use of cameras

have empowered individuals to assume the role of photographers (Wiksana 2018). This profession constitutes various perspectives, including envisioning objects, showing object manifestations, constructing perceptions, interpreting meanings (hermeneutics), and exploring diverse subject matter (Sanders 2007). Its significance is proven by its popularity among Indonesian teenagers and its increasing relevance in the modern era. Photography has permeated diverse spheres, contributing new insights and perceptions across fields such as science, medicine, industry, fashion design, communication, and art (Mladenović, Mladenović, and Mladenović 2010). Considering the essential role of photography in contemporary society, students are expected to cultivate a high level of interest in studying photography subjects.

## Methodology

### *Subjects and site*

The participants comprised students enrolled in Visual Arts Department at Universitas Negeri Semarang. A non-probability purposive sampling method was adopted to meet specific respondent qualifications. The participants were selected based on the following criteria: (a) Regular usage of Instagram and (b) Enrollment or completion of photography courses. This study adopted a proportional random sampling method with 100–200 respondents (Hair et al. 1998).

### *Procedures and measurements*

A total of 130 questionnaires were distributed among students of Visual Arts Department at Universitas Negeri Semarang. However, only 100 questionnaires could be processed since the remaining were incompletely filled out. The measurement of Instagram variable included 14 items, while the variable of interest in learning photography comprised 8 items. Both variables were measured using a 5-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree), gender (women = 0, men = 1).

## Result and discussion

### *Statistical descriptive analysis*

Descriptive analysis is a statistical method for describing and interpreting obtained data.

Table 1 shows the demographic profile of the samples. Out of the 100 respondents, 53% were men, 79% were in the 18–19 age group, and 50% were enrolled in Photography course. Regarding Instagram activity, 47% had been active on Instagram for more than 36 months, 51% spent 1–60 min accessing the platform on a daily basis, and 84% accessed 1–10 times daily.

### *Validity test*

This study adopted a Factor Analysis method, assessed by the Kaiser–Meyer–Olkin test. The validity of each question item was determined by the MSA (Anti-Image Correlation)

**Table 1.** Profile of the sample % (N = 100).

Demographic variable	Category	%
Gender	Man	53
	Woman	47
Age	18–19	79
	20–21	21
Enrollment status in Photography course	Enrolling the course	100
Duration of Instagram account	1–12 months	6
	13–24 months	19
	25–36 months	28
	>36 months	47
Duration of accessing Instagram in a day	1–60 min	51
	61–120 min	17
	121–180 min	16
	>181 min	16
Frequency of accessing Instagram in a day	1–10 times	84
	11–20 times	13
	21–30 times	3
	>30 times	–

value, where a minimum value of 0.5 shows the validity and suitability of the item for further analysis (Hair et al. 1998) (Table 2).

Table 3 shows that the KMO-MSA (Kaiser–Meyer–Olkin Measure of Sampling Adequacy) value was 0.645, with a significance level of 0.000. This showed the data were suitable for further analysis, surpassing the established threshold (0.645 > 0.500).

Table 4 shows that question item number 9 was invalid and excluded from further analysis due to its Anti Image Correlation value falling below 0.5 (0.389 < 0.5).

### Reliability test

A variable is considered reliable when the Cronbach Alpha value exceeds 0.70 (Ghozali 2006). Sekaran (2003) also argued that a reliability value below 0.6 is considered poor, 0.7 is acceptable, and 0.8 is highly reliable.

Table 5 shows that the variables of Instagram and interest in learning photography yielded acceptable reliability values (greater than 0.70).

### Hypothesis test

This was carried out to examine the relationship between Instagram variable and interest in learning photography (Table 6).

The results showed a significant influence of the analyzed path, with a significance level below 0.05.

**Table 2.** Variables indicators of Instagram and interest in learning photography.

Instagram	Interest in learning photography
Hashtag	Content feeling
Location/Geotag	Interest
Follow	Attention
Share	Engagement
Like	
Comment	
Mention	

**Table 3.** Results of factor analysis.

KMO and Bartlett test		
Kaiser–Meyer–Olkin measure of sampling adequacy		0.645
Bartlett test of sphericity	Approx. chi-square	688.140
	Df	231
	Sig.	0.000

**Table 7** shows that the  $R$ -value was 0.405, while the adjusted  $R$ -Square value was 0.164. This showed that 16.4% of the variance in the dependent variable (interest in learning photography) could be explained by the independent variable (Instagram).

### **Dependent variable: interest in learning photography**

Description:  $*p < .05$ ;  $**p < .01$ ;  $***p < .001$ ; Standardized regression coefficients.

The results of the hierarchical regression calculations in **Table 8** showed a  $\beta$  value of  $-0.382$ , and a  $\Delta R_2$  value of 0.002. Therefore, gender did not moderate the influence of Instagram on interest in learning photography.

## **Discussion**

The analysis showed that Instagram significantly influenced interest in learning photography, serving as an individual medium for creation and imagination captured through a camera lens and shared as artwork on the platform. The quality of uploaded images greatly impacts the attractiveness of an account and the number of visitors. Features like photography tools, geotagging, geolocation, and hashtags offer extensive information, including uploaded pictures, fostering branding opportunities. Instagram is a widely used modern social network among college-age adolescents and can be easily

**Table 4.** Validity test results on variables of Instagram and interest in learning photography.

Variable	Indicator	Question items	Anti-image correlation	Results
Instagram	Hashtag	1	0.623	Valid
	Hashtag	2	0.507	Valid
	Geotag	3	0.612	Valid
	Geotag	4	0.610	Valid
	Follow	5	0.559	Valid
	Follow	6	0.588	Valid
	Share	7	0.695	Valid
	Share	8	0.567	Valid
	Like	9	0.389	Invalid
	Like	10	0.631	Valid
	Comment	11	0.533	Valid
	Comment	12	0.701	Valid
	Mention	13	0.704	Valid
	Mention	14	0.508	Valid
Interest in learning photography	Content feeling	1	0.701	Valid
	Content feeling	2	0.756	Valid
	Interest	3	0.693	Valid
	Interest	4	0.765	Valid
	Attention	5	0.679	Valid
	Attention	6	0.598	Valid
	Engagement	7	0.648	Valid
	Engagement	8	0.768	Valid

**Table 5.** Reliability test results.

Variable	Cronbach's alpha	No of items	Results
Instagram	0.718	13	Reliable
Interest in learning photography	0.768	8	Reliable

**Table 6.** T-test results of Instagram and interest in learning photography.

Model	Coefficients a				
	Unstandardized coefficients		Standardized coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	14.399	3.433		4.194	0.000
Instagram	0.288	0.066	0.405	4.380	0.000

Dependent variable: Interest in learning photography

**Table 7.** R-value analysis results for the variables of Instagram and interest in learning photography.

Model	Model summary b									
	R	R Square	Adjusted R square	Std. error of the estimate	Change statistics					Durbin-Watson
					R square change	F change	df1	df2	Sig. F change	
1	0.405a	0.164	0.155	3.87591	0.164	19.185	1	98	0.000	1.985

a. Predictors: (Constant), Instagram.

b. Dependent variable: Interest in learning photography.

installed through the Google Play Store. Users are encouraged to upload unique and visually appealing content, thereby stimulating interest in photography and enhancing enrollment in university Photography courses.

Descriptive analysis showed that most students actively used Instagram for approximately 36 months. Nearly half of the users spent an average of 60 min daily on the platform, accessing up to 10 times a day. This showed the strong integration of Instagram into students' lives, with enduring popularity and high engagement. The prolonged usage duration signified its significant presence and influence on students' daily routines over recent years. According to Jun (2022), beyond entertainment, many users leverage Instagram as a medium for creativity and art. Integrating the platform into Photography course can enhance students' learning interest, considering the familiarity and use as a digital catalog platform. However, many users are unaware that using Instagram can enhance visual literacy skills. Engaging in photography activities is a form of learning that can increase the sensitivity of visual literacy. Guidance from teachers or tutors could maximize learning outcomes in photography.

**Table 8.** Analysis results of gender moderation.

Variable	$\beta$	SE $\beta$	$\beta_a$	$\Delta R^2$
Step 1				
Instagram	0.264	0.068	0.70***	
Gender	-1.121	0.800	-0.133	
Step 2				
Instagram $\times$ gender	-0.063	0.136	-0.382	0.002



A majority of respondents used hashtags when uploading pictures to increase exposure and garner more likes for their content. Instagram serves as a common platform for local and international businesses to develop their brand through digital marketing strategies. Using hashtags is an effective means for businesses to expand their reach and grow follower base. It also plays a crucial role in enhancing content visibility, facilitating discovery and engagement of users with topics of interest (Purba, Asirvatham, and Murugesan 2021). The increase in followers motivates users to elevate their creativity output when sharing content and images. Positive responses and numerous likes received on uploaded images generate satisfaction of users, thereby positively motivating photography students to refine their skills. Active engagement on Instagram is recommended, considering its familiarity among students. Not only does Instagram serve as a space to expand photography skills, but also functions as a medium to showcase photography abilities and build users personal brand. Therefore, it is a valuable learning tool that connects with the current digital reality of students.

The results showed a  $\beta$  value of 0.405 ( $p < .001$ ), with a significant positive impact of the platform on students' interest in learning photography. Conversely, lower Instagram usage frequency correlated with reduced motivation to learn. Instagram as an essential social platform enables the sharing of pictures with text captions, differentiating it from other platforms. This unique feature encourages users to find or create high-quality images. Consequently, Instagram fosters creativity, facilitates in-depth storytelling, and empowers users to share experiences as well as ideas through compelling images, creating deep and satisfying social interactions in the digital world (Jun 2022).

The prevalent use of Instagram has motivated several individuals to acquire photography skills. This was supported by Arsita (2018), elaborating on the necessity of specific photography skills to ensure aesthetic elements in pictures. Such emphasis encourages users to learn various methods, capture diverse styles of photography, and establish a positive image by considering different perspectives and honing photography skills. These measures are conducted to augment the appeal of content uploaded, as photography is a medium for communication. According to Martínez, Berrozpe, and Lasarte (2014), Instagram promotes digital photography as a means of expression and communication within families, relationships, and wider social circles. Packaging content for increased attractiveness and exposure is considered a challenging task. Therefore, integrating Instagram into Photography courses could inspire users to foster a keen interest in photography. Antopani (2016) stated that photography had evolved into a lifestyle, as it entails the consistent sharing of photography works on social media or photography platforms, presenting personal and unique perspectives and visual art to a broader audience (Fairus, Bagaskara, and Suardana 2023).

The results showed a  $\beta$  value of  $-0.382$  and an  $\Delta R_2$  value of 0.002, with both statistically insignificant for the variable. This showed there was no difference in gender status of the respondents. Unlike previous investigations, the current study found that gender did not significantly influence interest in learning photography. Both male and female respondents showed similar enthusiasm for learning. Moreover, gender status did not impede individual interest or motivation to learn. This was supported by Prasetyo, Banindro, and Yulianto (2018), elaborating on the insignificant role of gender in photography interest. Gender and sexuality issues are gradually losing relevance, as mass media portray

the role of men and women as increasingly equal. Juditha (2015) stated that the proportion of women in mass media construction had evolved and currently replacing the role of men, particularly in photography. This modern reconstruction has caused a shift from conservative paradigm, promoting the role of women in social and mass media.

## Conclusion and recommendation

In conclusion, this visual literacy study offered valuable insights into the world of art education, specifically addressing historical perceptions that photography was predominantly associated with men. The primary aim was to investigate how Instagram influenced the interest of university students in learning photography, with a focus on gender differences. The analysis showed that Instagram motivated users to develop digital photography for self-expression and communication within social circles. The challenge of curating appealing content on the platform showed its potential as a valuable tool within Photography courses, encouraging the refinement of photography skills. Photography has evolved into a modern lifestyle that fostered creativity, social connections, and unique visual identities through digital media. This shift was propelled by Instagram, serving as a medium for users to receive appreciation for their photography works and content.

The role of Instagram in enhancing visual literacy skills conformed with its support for generating interest in photography. Unlike previous investigations, the current study showed that gender differences did not significantly influence interest in learning photography. Both men and women had equal access and rights to create Instagram accounts. The comparable enthusiasm exhibited by both gender reflected the commitment of the university to promote gender equality in its educational model. While historical records showed greater male participation in photography, the current trend proved the increasing interest of women. It was important to acknowledge that the scope of this study was confined to university students, suggesting the need for future investigations to include participants from various educational levels.

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## Disclosure statement

No potential conflict of interest was reported by the author(s).

## Notes on contributors

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