



The Effect of Perception on Focus Level and Satisfaction when Reading Books at Book Cafe in Bandung City

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Abstract. *This study examines how lighting perception influences reading focus and satisfaction in book cafés in Bandung, Indonesia. A descriptive quantitative approach was employed, involving a preference survey and an experimental study conducted at a selected book café. Thirteen female participants were assigned to three distinct seating areas characterized by different lighting conditions. Participants completed reading tasks and evaluated their environmental comfort, focus level, and reading satisfaction. The findings indicate that lighting comfort significantly correlates with focus ($\rho = .000, p < .01$) and reading satisfaction ($\rho = .016, p < .05$), although focus and satisfaction were not significantly related. ANOVA results revealed a significant difference in perceived lighting comfort across seating points, with the most favorable conditions found at Point A. These results underscore the importance of lighting design in enhancing the reading experience in multifunctional public spaces such as book cafés. Future research should consider additional environmental variables, including noise and thermal comfort.*

Keywords: *lighting perception, reading focus, satisfaction, book café, interior environment.*

1. INTRODUCTION

In the modern era, urbanization and changes in people's lifestyles significantly affect the way individuals interact and go about their daily activities. Along with the times, the increasingly diverse needs of society have led to the formation of various types of spaces to meet these demands. One type of space that is experiencing rapid development is the third place. Based on the concept introduced by (Oldenburg, 1999), a third place is a social space that becomes a place for interaction between individuals outside the home (first place) and workplace (second place). However, with the increasing need for multifunctional spaces, third places have undergone many transformations, for example cafes, libraries, or parks, which no longer fulfill only one main function but now often combine two or more functions in one space (Khakzand, 2016) This merging of two or more conflicting spatial functions is not only influenced by practical needs, but also by changes in people's hobby patterns and lifestyles. This is explicitly the case in Bandung, where people's lives are becoming increasingly dynamic. One of the most common combinations of spatial functions in Bandung is the book café, which combines a café and a library that have many differences, ranging from human activity, purpose, to the interior design. The merging of two different environments makes the space in it dynamically designed. In the book café phenomenon, tables and seating no longer follow library standards, but follow cafes intended for eating and drinking. The placement of seats also does not really consider the aspects of noise or lighting, so in its execution, the book café

is very dependent on the preferences of visitors. When viewed in the context of interiors, a book café often does not follow the standards of a library, so it should not be a suitable place to read.

In this research, lighting is discussed because it is closely related to the interior. But, are visitors still able to concentrate optimally in this very different condition? Do they feel satisfied by reading in such a place? This study will focus on their perceptions of the lighting they experience, as well as their focus and satisfaction when reading. This study will also examine the extent of the relationship between their assessments of these perceptions.

2. THEORETICAL STUDIES

Many research already conducted for a book café, such as Eba et al. (2024) who explores about college student's perception about library cafes that appear more and more in their living areas. Similar to Eba, Nguyen et al. (2019), Laing & Royle (2013), and Aliwijaya & Syahfitri (2023), explore about a book café or bookstore café as a third place and how people response about it. Most research on book cafes are qualitative, where they conduct deep interviews and collect subjective answers. This happens because most book cafe research is a phenomenon, so it uses more qualitative methods to dissect the phenomenon subjectively.

In the areas of lighting, interior, and visual perception, there are also many research that already conducted. Research by Ariyanti & Pani Rengu (2015) examined the role of interior design elements, such as lighting, air circulation, and noise on library user satisfaction. The result is that the most dominant on library satisfaction is air circulation. Another finding said that lighting is also one of the most important factor that influence visitors in reading (Mohanty, 2002). A research by Rana Madhani Putri Zalmi & Gustina Erlianti (2024) finds that natural and artificial lighting has an impact to visual comfort of users in a library. In the areas of café, Dewi Nastiti Ahda & Ade Syoufa (2024) found that not all points have sufficient lighting standards, but it is still acceptable to visitors and still feels comfortable.

Based on these studies and the gaps, this journal will examine the book cafe phenomenon from the perspective of visitors who specifically read there. The researcher will look at what motivates them to go there, how they prefer the atmosphere, and how they respond to the environment, especially lighting. Here, their ratings will be calculated to find out how their perceptual response to lighting affects their reading focus and satisfaction.

3. METHODS

The method used in this research is descriptive quantitative, which is a method that helps describe, show or summarize data in a constructive way that refers to a statistical description that helps understand data details by summarizing and finding patterns from certain data samples (Sudirman et al., 2023). The research was conducted in January-February 2025. The research began with taking a preference survey. The initial survey was conducted through google form with the target of people who like to read. After the survey, several respondents were selected who were willing to become experimental subjects, namely they would be placed at several points in the book café as a result of the google form preference, then they would read, do reading tasks, and fill out an environmental assessment questionnaire. In this questionnaire, they will assess the comfort of lighting, noise, and atmosphere. They will also subjectively rate their reading satisfaction and concentration level at each point. After that, the trends of these assessments will be looked at, correlated, and then concluded.

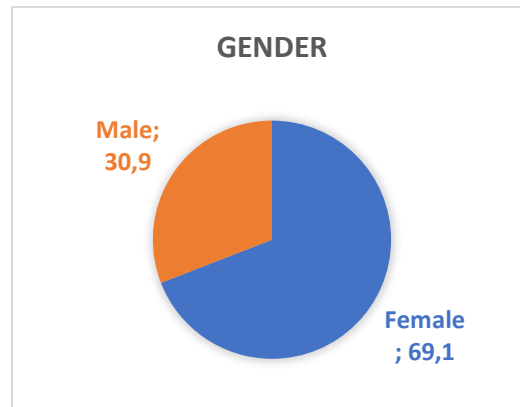
4. RESULTS AND DISCUSSION

Preference Survey

The first part of this research was to conduct a preference survey to the reading public with a total of 55 respondents. The results of this questionnaire are as follows.

Table 1. Motivation of going to book cafe

No.	Motivation of going to book cafe	Total	Percentage
1.	Comfortable atmosphere for reading	41	75.5%
2.	Book collection owned	39	70.9%
3.	Buying food or drinks	17	30.9%
4.	Doing errands, working, or studying	39	70.9%
5.	Meeting friends	18	32.7%
6.	Looking for inspiration	20	36.4%
7.	Community events	9	16.4%
8.	Seeking tranquility	1	1.8%
9.	Leaving the house to find a different atmosphere	1	1.8%



Graphic 1. Respondents Gender

In the first part, the questionnaire will look at the type of respondents who answered and the motivation to go to the book café. 69.1% of the questionnaire respondents are female and 30.9% are male. Next, they chose the motivation to go to a book café which is close-ended multiple choices. Their motivation to go to a book café is because of the comfortable atmosphere for reading (74.5%), book collections owned and doing assignments, working, or studying (70.9%), looking for inspiration (36.4%), meeting friends (32.7%), buying food or drinks (30.9%), community events (16.4%), looking for peace (1.8%), and leaving the house looking for a new atmosphere (1.8%). When asked about preferred seating, most respondents chose corners (19) or near windows (13), favoring spots with outdoor views to stay aware of time and reduce boredom. Some prefer semi- or outdoor areas for fresh air or smoking. Overall, 65.5% feel focused (scale 4) in their preferred spot. Respondents generally choose book cafés with a comfortable atmosphere—quiet, well-lit, and ventilated—preferably with a view or access to the outdoors.

Location and Seating Point Selection

After identifying the ideal reading environment, the experimental site was chosen based on key preferences: a wide book selection, quiet spots away from foot traffic, and access to natural views. EncyCoffee on Jalan Cihapit, Bandung, met these criteria and was frequently recommended by respondents. According to the owner, it leans more toward a café than a library, making it suitable for studying light's effect on reading focus and satisfaction.

The next step was selecting seating locations. EncyCoffee has indoor and outdoor areas. Indoors is quieter and more suited for focused reading, while the outdoor area is brighter and

often used for socializing or working. Three spots were chosen for the experiment: two indoors and one outdoors.



Figure 2. Point A



Figure 1. Point B

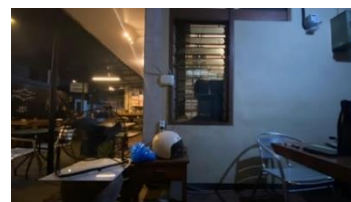
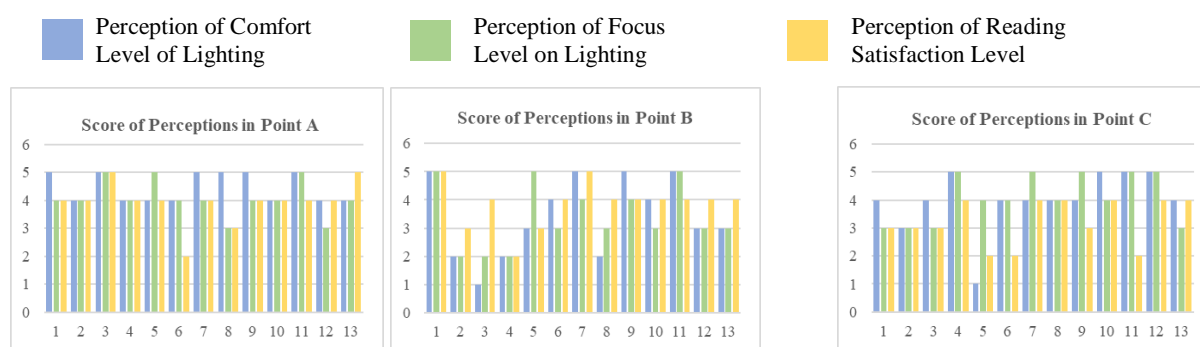


Figure 3. Point C

The Experiment and The Result

After selecting the book café and point, the next step was the experiment. The experiment was conducted on 13 women. The reason is because women have a higher level of focus compared to men (Ingram et al., 1988), (Ellis, 2015) Women also read more often than men (Hu et al., 2023), (Perrin, 2016) as evidenced by literature studies, observations, and questionnaire respondents who filled out more women. In the experiment, respondents will be asked to read a book, do reading tasks according to the reading material, then fill out questionnaires on environmental satisfaction, reading satisfaction, and focus level. The data collection technique uses a random sampling method, where each respondent will be randomized in order between points A, B, and C. The following are the results of the experiment.



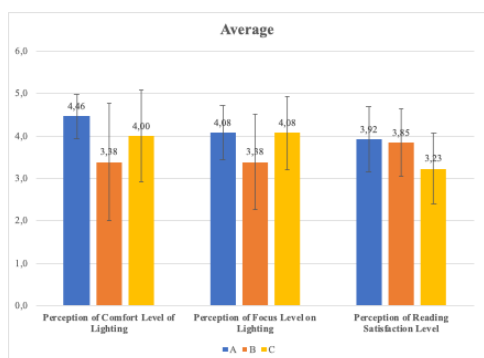
Graphic 2. Point A Perception Score

Graphic 3. Point B Perception Score

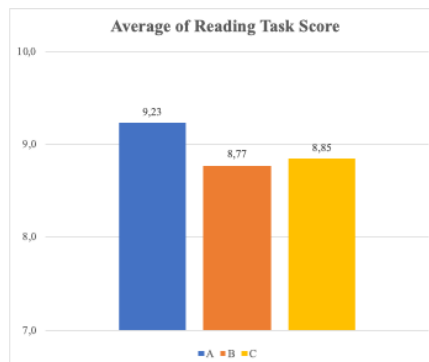
Graphic 4. Point C Perception Score

when viewed from the graph, the ratings of all types of perceptions at point A look more stable and the values are higher compared to points B and C. At point A, respondents gave subjectively very positive lighting perception scores. Respondents feel comfortable, focused and satisfied reading at this point. In contrast, at point B, the perception scores that appeared were more varied, with many scores of 2, 3, and even 1. There were fewer scores of 5. This indicates that the lighting conditions at point B are considered less comfortable and less supportive of focus, although some individuals still feel quite satisfied. At point C, scores tend

to stabilize at 3-4, but not as high as at point A. In general, perceptions are more neutral to moderately positive, so they are neither distracting nor obtrusive. Next, there will be a graph comparing the average of each perception score with the reading task score.



Graphic 5. Average Perceptions of point A, B, and C



Graphic 6. Average of Reading Task Score

In the graph, it can be seen that point A has a higher average perception than points B and C, although there are similar perceptions and slightly lower perceptions than point B. Point A also has a higher average reading task score than points B and C. When points B and C are compared, point B has a lower average comfort and focus perception score than point C, but in terms of satisfaction, visitors are more satisfied to read at point C. This is also supported by point C's slightly higher average reading task score than point B.

Now, let's look at the standard deviation. A small standard deviation value indicates more homogeneous data. The smaller the standard deviation value, the more homogeneous or uniform the calculated data (Maulid, 2023). When viewed from the standard deviation, the most superior perception of light comfort is at point A of 0.52. Points B (1.39) and C (1.08) have considerable variation in perception between respondents, where point B has a higher variation than C. In the perception of focus on lighting, point A also excels with a value of 0.64. Here, point B has a value of 1.12 and point C has a standard deviation value of 0.86, making point B more variable in focus level values than point C. In reading satisfaction, point A has a value of 0.76 which is superior to B with a value of 0.80 because it is more stable in value, and the most variable is point C with a value of 0.83. The following is the conclusion of the relationship between average perception, consistency of perception, and average reading task score which will be presented in the table.

Looking at the table 2, what this means is that higher and more consistent perception levels correlate with better reading task scores. In addition, inconsistency between respondents also affected performance, where point B had a better average perception score than C, but a lower reading task score. This is likely because respondents' perceptions are more unstable. This is supported by the results of interviews with respondents where they felt that the lighting at point B was sometimes obstructed by their heads, so they could not read clearly. This did not happen to all respondents, causing the assessment results to vary more. At point C itself, some respondents preferred to read at this point because they get natural light from nature, unlike at points A and B where it depends on artificial light, although natural light can still be felt.

Table 2. Perception's average, consistency, standard deviation error, and reading task score

Point	Perception Avg.	Perception Consistency	Std.	RTScore
A	High	High	0,52	9,23
B	Middle	Low (Vary)	1,39	8,77
C	Low-Middle	Middle (Stable)	1,08	8,85

Table 3. ANOVA Test

Perceptions	Group	Sum of Squares	df	Mean Square	F	Sig.
Comfort	Between	7.590	2	3.795	3.389	0.045
	Within	40.308	36	1.120		
	Total	47.897	38			
Focus	Between	4.154	2	2.077	2.585	0.089
	Within	28.923	36	0.803		
	Total	33.077	38			
Read Satisfaction	Between	3.744	2	1.872	2.940	0.066
	Within	22.923	36	0.637		
	Total	26.667	38			

To be more objective, ANOVA and Post Hoc tests were conducted. In the ANOVA table, it can be seen that a significant difference exists in comfort as $p < 0.05$. In the focus level and reading satisfaction, the difference between the groups was not significant. Although reading satisfaction was close, but p remained above 0.05. Now, to find out where the difference is, it can be seen through the Post Hoc Test table below.

The result of the ANOVA in table 3 was that the comfort section had a significant difference. So, in the Post Hoc Test in table 4, only the comfort section is considered. When viewed, the points that have a significant difference are A and B with a difference of 1.077 and p is 0.035. This means that respondents at point A feel much more comfortable than at point B. After knowing the value of the difference at each point and which one is the most significant, a correlation test is carried out to find out how much the relationship between the perception assessment variables is.

Table 4. Post Hoc Test

Dependent Variable	(I) Point	(J) Point	Mean Diff. (I-J)	Std.	Sig.
Comfort	A	B	1.077*	0.415	0.035
		C	0.462		0.513
	B	A	-1.077*		0.035
		C	-0.615		0.311
	C	A	-0.462		0.513
		B	0.615		0.311
Focus	A	B	0.692	0.352	0.135
		C	0.000		1.000
	B	A	-0.692		0.135
		C	-0.692		0.135
	C	A	0.000		1.000
		B	0.692		0.135
Read Satisfaction	A	B	0.077	0.313	0.967
		C	0.692		0.083
	B	A	-0.077		0.967
		C	0.615		0.135
	C	A	-0.692		0.083
		B	0.615		0.135

Table 5. Non-Parametric Correlation Test

		Comfort	Focus	Read Satisfaction
Comfort	Corr. Coef	1.000	0.571**	0.384*
	Sig. (2-tailed)	0	0.000	0.016
	N	39	39	39
Focus	Corr. Coef	0.571**	1.000	0.220
	Sig. (2-tailed)	0.000	0	0.179
	N	39	39	39
Read Satisfaction	Corr. Coef	0.384*	0.220	1.000
	Sig. (2-tailed)	0.016	0.179	0
	N	39	39	39

In table 5, it can be seen that between perceived comfort and perceived reading focus has a moderate positive correlation, with a rho value of 0.571 and p of 0.000. This means that the higher the perceived comfort of the lighting, the higher the focus perceived by the participants. The result is quite strong and consistent. In addition, there are variables of reading comfort and satisfaction. In the table, the two variables have a weak and significant correlation, with a rho of 0.384 and a p of 0.016. This means that the more comfortable the lighting, the higher the reading satisfaction. The correlation has a real relationship, although 250 tis not very strong.

Then, there is No. significant relationship between focus and reading satisfaction, with a rho value of 0.220 and a p of 0.179. This means that feeling focused does not necessarily make someone feel satisfied in reading.

5. CONCLUSION AND RECOMMENDATION

In conclusion, overall, the assessment of lighting comfort has a strong effect on the level of focus and reading satisfaction. Although if someone feels focused, it does not necessarily mean that they are satisfied in reading, it shows that comfortable light is the main variable that needs to be considered in a book café. When viewed by point, point A is more recommended for reading if it requires more focus compared to points B and C. Although point B does not shift far from point A, it turns out that respondents feel more focused and satisfied to be at point A. When considered from the standard deviation, at point B the results are more varied and the data is more spread out, so point B is strongly influenced by the preferences of respondents who sit there. This variation in data could also be influenced by other environments, such as noise, temperature, and ambience, so this can be investigated further. Research on lighting that is considered comfortable can also be done in future research.

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