

## The Impact of Red Marking: Psychological Effects on Students' Mental Well-being

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### Abstract

Colors communicate various messages, particularly in education settings where teachers mark students' exam papers, assignments or provide feedback. This raises the question of which color should be utilized- red, yellow, green or another? The present study was an attempt to address this issue. A questionnaire was distributed to 21 male and female teachers from various majors in Al Dhahirah region of the Sultanate of Oman. The findings of the current study are noteworthy. Although teachers use red pens, some acknowledged that this color impacts students' emotional well-being, psychological states, and self-esteem. Thus, it is crucial for teachers to consider students' emotions and preferences when using red pen in marking exam papers and/ providing feedback to students' writings.

**Keywords:** corrections, emotion, , feedback, psychology, red ink, students, teachers, traffic lights.

### Introduction

In recent decades, the use of red pen in marking has been a controversial issue among scholars and teachers (Albanesi & Dukes, 2013, Semke, 1984). Some teachers believe that the red pen possesses a greater ability to uncover hidden mistakes compared to other colors such as blue, purple, or orange. These teachers intentionally use red pens, believing that it is an effective method for highlighting students' mistakes and weaknesses in their writing. However, this practice can adversely affect students' mood and self-esteem, causing them to feel anxiety and inadequacy.

The use of red pen in marking has recently become a subject of controversy, as it evokes associations with traffic lights, danger, and fire. The present paper examines the rationale behind some teachers' intentional insistence on using red pen for marking students' papers, as well as the emotional and psychological impacts on students. Additionally, it explores the potential positive effects of using alternative colors for marking and providing feedback.

### Statement of the Problem

This study investigates the effects of using the red pen for marking exam papers, assignments, homework and providing feedback. It aims to determine whether alternative colors have a more

positive and calming impact on students' psychological well-being. This paper will thoroughly explore the differences between using red pen and other colors in educational contexts.

### **Objectives of the Study**

This study pursues the following two-fold purpose:

- 1.To investigate the negative effects of using red pen by teachers for marking students' work.
- 2.To explore the positive impacts of using colors other than red on students' self-esteem and emotional well-being.

### **Research Questions**

In alignment with the objectives of the study, this research was an attempt to address the following questions:

- 1.What are the negative effects of using red pen for marking students' exam papers, assignments and providing feedback?
- 2.What are the positive impacts of using colors other than red on students' self-esteem and emotional well-being?

### **Literature Review**

In education, the assessment and correction of students' writing play a crucial role in enhancing their language skills and overall academic performance. Existing tools for writing improvement often fall short, as they are either too brief to provide specific guidance, or too lengthy to be practical within coursework.

Not only is the task of carefully correcting written work time-consuming, but the immediate feedback a teacher receives is frequently negative. The return of papers covered with the inevitable red marks results in looks of disappointment and discouragement on students' faces. The teacher wonders if the students will even bother to read the corrections, to say nothing of learning from them (Semke, 1984, p. 3).

A research study at the University of Minnesota compared four different methods of teacher treatment for correcting free-writing assignments. These methods included writing comments and questions instead of corrections, marking all errors and providing the correct forms, combining positive comments and corrections, and indicating errors with a code and requiring students to find corrections and rewrite the assignment. The results of this study indicated that student progress was enhanced by writing practice alone, suggesting that corrections did not significantly increase writing accuracy, fluency, or general language proficiency. Furthermore, corrections had the potential to negatively impact student attitudes, particularly when students were required to make corrections themselves (Dukes & Albanesi, 2013)

The psychological effect of the color of ink used in correction has also been a topic of significant discussion. Red ink, traditionally used by many educators, has been increasingly viewed negatively. The use of red ink for correcting students' work was often seen as too "aggressive" and was banned in some schools. "Writing in red ink can evoke strong emotions and possibly create a negative and discouraging response from students" (Dukes & Albanesi, 2013, p. 2).

Barkham (2016) highlighted the stress teachers may face due to complex marking systems and bureaucratic demands. The NASUWT – The National Association of Schoolmasters Union of Women Teachers –, a teachers' union, highlights that marking systems in schools vary widely and teachers should be trusted to use their professional judgment when correcting student work (Barkham, 2016). Furthermore, the use of different colored pens for marking schemes adds a layer of complexity to the already demanding task of grading assignments.

Jacobs (2020) further expanded this discourse by addressing the contentious issue of mandating specific pen colors for marking students' work. He critiqued the trend of "rainbow marking", where different colored pens are used for various tasks, as a form of "felt-tip pen totalitarianism" (Jacobs, 2020, p. 6). He argued that this practice was less about educational benefit and more about monitoring teachers. Jacobs advocated for student autonomy in choosing their pen colors, questioning the rationale behind enforced color-coding schemes, and emphasizing the importance of focusing on facilitating improvements rather than enforcing arbitrary regimes.

Despite the criticisms, there are substantial arguments in favor of using red ink. Proponents argue that red helps to distinguish corrections clearly from other annotations. According to the study conducted by Rutchick et al. (2010, p.11), "Using red pens made the concept of errors and poor performance more cognitively accessible.". Participants using red pens tend to mark more errors: "As predicted, evaluators using red pens marked more errors than participants using blue pens." (Rutchick et al., 2010, p.14). Despite the positive arguments, the study also highlighted that red is strongly associated with avoidance and failure. Exposure to red writing or objects can influence performance and behavior, with red pens specifically having a long-standing association with error-marking. The use of red pens increased the cognitive accessibility of failure-relevant concepts, leading to increased error-marking and harsher evaluation. These findings suggest that red pens are not neutral objects, but are laden with meaning, potentially priming the concepts with which they are associated.

While red pens are practical tools for teachers to quickly identify corrections, the potential negative impact on students' well-being should be prioritized over convenience. This association with aggression and negativity has led some educational institutions to reconsider their use of red ink for marking students' work. Despite that, it is worth noting that a survey by Hope Education UK revealed that around 70% of teachers continue to use red pens for grading, indicating that the move away from red ink has not been widely adopted (Hope Education, 2021).

To broaden the personal perspective, an inventive, albeit problematic, strategy by students attempting to neutralize the impact of red ink corrections has been encountered in our classrooms. Some students began using red pens to complete their tests and assignments, which

made any subsequent red markings by the teacher invisible. This act of 'camouflage' cleverly, yet disruptively, undermined the effectiveness of using red ink to highlight areas of concern and required improvement. The challenge then was not just about the choice of color, but also about maintaining the visibility and effectiveness of feedback, critical to the learning process.

This experience underscored the need for adaptability in teaching practices. It became clear that while red ink might serve well in distinguishing corrections, its effectiveness is contingent upon how it is perceived and engaged with by students. Thus, educators might need to consider alternative strategies that maintain the clarity and visibility of feedback but are also receptive to the preferences and perceptions of their students.

As aforementioned, colours convey meaning. The red one is on top of other colors regarding effect. Sometimes it conveys a message of danger, fire, adverse consequences, etc. Moreover, it has the power of raising blood pressure and / or other physical and psychological problems.

It is claimed that red can raise your blood pressure and quicken your heartbeat – it certainly does in education. Red is the color of love, violence, danger, anger, fire, energy, luck, and adventure. It is also a 'teacher color' that some educators despise. (Dabell, 2018, p.1).

Some educators and academics at different institutions- schools, colleges, or universities- conclude that there is no harm in using red, green, pink, yellow colors, etc., provided that messages, or comments reach students and work accordingly (Dabell, 2018), whereas some teachers believe that comments in red are more beneficial than those in others, as red directly draws students' attention to the message needed.

Some argue that red comments can actually be read more easily than some neutral colors which are far from easy to read than aqua or green and so end up watering down the message. Lots of teachers I know mark in 'green', but this can be a real problem for some pupils who see colors differently to their peers (Dabell, 2018, p.14).

The decision to go without the traditional red pen for marking is also a source of controversy. Although choosing colors other than red may appear to be a positive measure to reduce potential negative impacts on students' emotional well-being, it introduces its own set of challenges.

Marking in any color other than red might prove confusing for both students and teachers, particularly in cases of double marking where specialists need to differentiate between students' and teachers' writing without knowledge of their specific handwriting styles. Moreover, some students prefer to write their papers in colorful pens, such as green, black, blue, and purple. If the teacher marks in the same color, comments may become indistinguishable, presenting a significant burden for teachers who would need to consistently carry pens of varying colors to ensure clarity. The issue extends to highlighting as well. Students often use highlighting for their own purposes, such as better memorization or selecting key information from lectures. As a result, important feedback and corrections marked by teachers may become lost or misinterpreted amidst students' own highlighting.

Furthermore, the ubiquity of red as a marking color is not arbitrary; it serves as a universal symbol of caution and attention. Departing from this standard may lead to confusion, necessitating additional training for both teachers and students or even imposing restrictions on color choices within educational institutions.

## **Methodology**

To get complete and accurate results regarding using red pen in marking or giving feedback, a questionnaire was disseminated among (21) male and female schoolteachers in Al Dhahirah Region, Sultanate of Oman. The participants were carefully selected according to their teaching experience, major of study, being distinguished and mature teachers. The authors requested (21) teachers for the study because many potential participants declined to take part in the research, declaring a lack of experience with the issue. In addition, some female teachers, due to cultural constraints, apologized and could not participate in the study. Since not all participants were English majors, the researchers had to translate and explain the questions in the participants' first language- Arabic. Furthermore, the researchers waited several days before beginning data analysis to ensure that participants did not change their minds or their responses. In general, the sample population was representative and provided precise and accurate responses, thereby enhancing the reliability and validity of the study. The inclusion of teachers from various majors was necessary due to the limited number of English teachers- fewer than ten- in the school where the data collection process was going on. Hence, teachers from other disciplines such as history, Arabic, geography were also included in the sample population.

## **Participants**

Participants teach various subjects, hailing from various villages and cities, boasting significant years of expertise. After receiving the participants' consent, they were briefed on the questionnaire, informed of its voluntary nature, and assured of their anonymity.

## **Instrument**

The researcher-designed questionnaire was utilized in this study to gather data. The questionnaire consists of (10) questions including five Yes/No, and five Agree/ Disagree questions.

## **Data Analysis and Discussion**

In pursuit of the objectives outlined in the present study, (21) teachers from diverse academic disciplines were requested to furnish precise and sincere responses to the questions. Figure 1 depicts the proportion of responses to sample Yes/No questions (Q1& 2) and Figure 2 displays the percentage of answers to sample Agree/Disagree questions (Q7& 8).

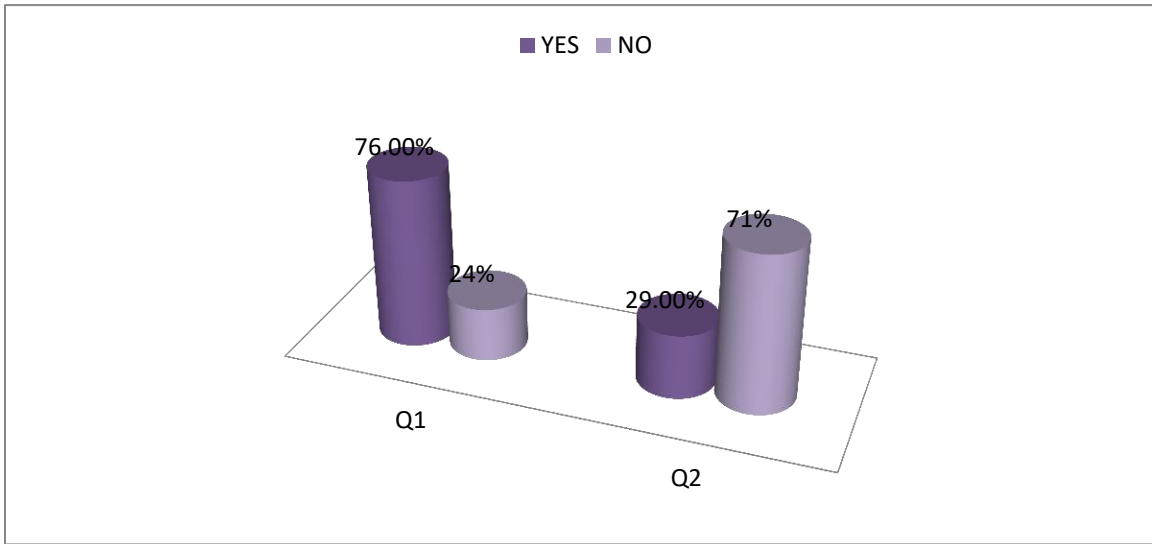


Figure1. Proportion of responses to questions 1&2

As illustrated in Figure 1, (76 %) of the participants believe that the use of a certain color affects students’ mood negatively and / positively. In other words, colors can influence behavior, morale as well as learning. This might be attributed to cultural factors that convey different messages through specific colors. For instance, in many cultures, pink is linked with femininity, whereas blue is associated with masculinity.

To answer question 2, significant majority of respondents (71%) express disagreement regarding the association of red color with anger upon encountering their teacher’s feedback/comments in red. This finding suggests that the pervasive use of red in everyday context, such as traffic signals. Conversely, (29%) of participants hold divergent opinions, indicating no anger or mood alteration in response to the use of red color. This discrepancy emphasizes the influence of individual’s character in shaping perceptions towards color stimuli.

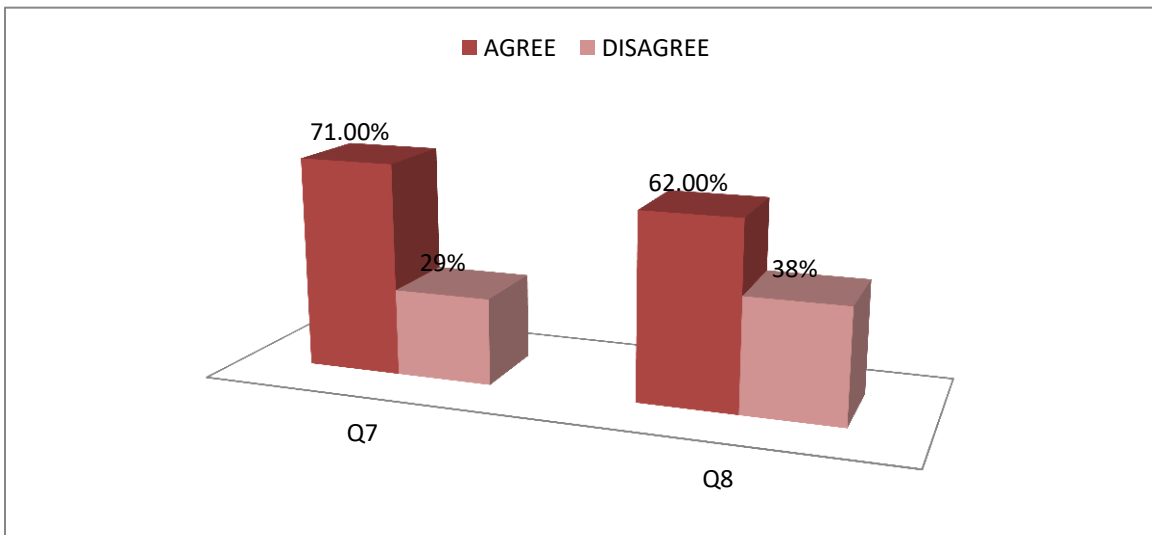


Figure 3. Proportion of responses to questions 7&8

As shown in Figure 3, (71%) of teachers agree that students may edit their peers' writings, including providing feedback, in a relaxed atmosphere that avoids the use of red pens. Conversely, (29%) of teachers disagree with the use of red ink in peer editing. However, this minority view is relatively small and does not significantly impact the overall preference for or against the use of red pen.

The analysis of responses to question (8) reveals that (62%) of the participants agree that the red pen has the power of finding hidden mistakes more than the other ones. This implies that students' errors are more noticeable and easier to identify when marked in red. However, (38%) of teachers disagree with the statement which suggests that they do not consider using red ink for editing or marking more effective than other colors in highlighting students' errors.

### **Conclusion**

Recent studies have shown that students do associate marking in red with harsh criticism, though it might not be the teacher's intention to do so. To prevent, or reduce stress and anxiety, teachers should consider marking in another color rather than red, which resembles danger to some students and negatively affects their self-esteem and psychological states. The authors are convinced that using any other color – blue, purple, green – is a feasible way to establish a good relation between teachers and their students. Based on the results, it is crucial for teachers to consider students' emotions and preferences. However, nothing is entirely conclusive worldwide. This topic requires further research and attention to provide greater clarity for interested parties including teachers, parents, and students.

### **Recommendations**

- While educators have the freedom to use any color for making students' papers, they should refrain from using red pen if it has a negative effect on their psychological well-being.
- Teachers may use highlighters of any color except red, as it can cause anxiety for some students.
- Teachers may employ animated or paralinguistic symbols as alternatives to using a red pen.
- Using multiple pens and colors can potentially complicate matters further. It is advisable to use a single color, avoiding red, if possible.
- If students are annoyed by the teachers' written feedback, regardless of the color used, the teacher may consider providing feedback verbally.
- Qualified and experienced teachers can discern their students' reactions to the use of color and should adjust their approach accordingly.



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## **Appendix 1**

### **Questionnaire**

Dear participants,

The purpose of this questionnaire is to collect information for an article titled “The Impact of Red Marking: Psychological Effects on Students’ Mental Well-being”. This information will not be misused, and you will not be identified.

### **Part One**

#### **Yes/ No questions**

1. The use of a certain color affects students’ mood; negatively and /or positively.

(A)Yes      (B) No

2. Personally, the red color makes me angry when I see my teacher’s comments in red. I feel that my paper is bleeding.

(A)Yes      (B) No

3. If I were a teacher, I would use verbal comments rather than in writing,

(A)Yes      (B) No

4. I do not mind which color my teacher uses when writing comments,

(A)Yes      (B) No

5. I believe that the red color should be banned in academic institutions, especially in kindergartens and elementary phases.

(A)Yes      (B) No

### **Part Two**

#### **Agree / Disagree**

6. Excessive use of red pen by instructors leads to more negative responses.

(A)Agree      (B) Disagree

7. Students may edit their peers’ writings, including writing comments via a relaxed atmosphere avoiding the use of red colour.

(A) Agree (B) Disagree

8. The red pen has the power of finding hidden mistakes more than the other colours.

(A) Agree (B) Disagree

9. The return of papers covered with the inevitable red marks results in looks of disappointment and discouragement on students' faces.

(A) Agree (B) Disagree

10. Red can raise blood pressure and quickens the heartbeat, and it certainly does in education.

(A) Agree (B) Disagree

**Appendix 2**

Question	YES	NO	AGREE	DISAGREE		
1. The use of a certain color affects students' mood; negatively and /or positively.	16	5				
	76.2%	23.8%				
2. Personally, the red colour makes me angry when I see my teacher's comments in red. I feel that my paper is bleeding.	6	15				
	28.6%	71.4%				
7. Students may edit their peers' writings, including writing comments via a relaxed atmosphere avoiding the use of red colour.					15	6
					71.4%	28.6%
			13	8		
			61.9%	38.1%		

### About the authors

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