



## **Laboratory Report: Blood Typing Analysis**

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### **Introduction**

Blood typing is an essential procedure that determines the specific blood type of an individual, which has implications for transfusions and organ transplants. The two primary systems used for this purpose are the ABO system and the Rh system. This report delineates the outcomes of a blood typing experiment, as presented in the provided images.

### **Objective:**

To determine the ABO and Rh blood type of samples using agglutination tests.

### **Materials and Methods:**

1. Blood typing slides with wells labeled "A", "B", and "Rh".
2. Blood samples from participants.
3. Agglutinating sera.
4. Red stirrers for mixing.

### **Procedure:**

1. A drop of blood sample was placed in each of the wells on the blood typing slide.
2. Specific agglutinating sera were added to the respective wells.
3. Using the red stirrers, the blood and sera were gently mixed in each well.
4. The slide was observed for any signs of agglutination (clumping) (Younes et al., 2023).

### **Results**

The first image displayed a document showing the different blood types and the percentage distribution among a class. According to this record:

- Blood type A.
- Blood type B
- Blood type AB was not detected in any participant.

- Blood type O was prevalent

The second image showed the physical appearance of the blood agglutination tests. The presence or absence of agglutination in the wells corresponds to the specific blood type of the sample.

## **Discussion**

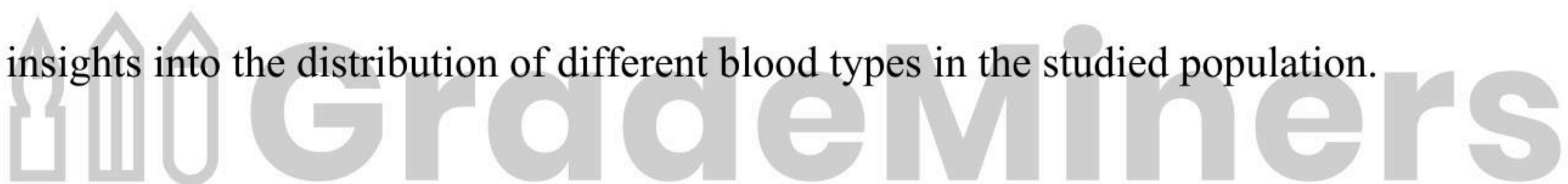
The percentage distribution indicates a higher prevalence of blood types A and O among the tested group.

The physical test corroborates the documentation, showcasing the precision of the blood typing technique.

It's imperative to note that the absence of agglutination in the "Rh" well implies a negative Rh factor (Aristov et al., 2022). Understanding blood type distribution is crucial for medical preparedness, especially in emergencies requiring blood transfusion.

## **Conclusion**

This laboratory experiment successfully determined the blood types of the given samples, providing valuable insights into the distribution of different blood types in the studied population.



## References

Aristov, A. A., Rozenbaum, Y. A., & Evtushenko, G. S. (2022). An Automated Method for Blood Type Determination by Red Blood Cell Agglutination Assay. *Biomedical Engineering*, 1-5.

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Younes, R., Spinella, P. C., Shea, S. M., Bailey-Kroll, L., Neal, M. D., Leeper, C., & Yazer, M. H. (2023). A rapid ABO and RhD test demonstrates high fidelity to blood bank testing for RhD typing. *Transfusion*.

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