Awareness Analysis Report

DKAP Framework – Awareness Component

1. Descriptive Statistics

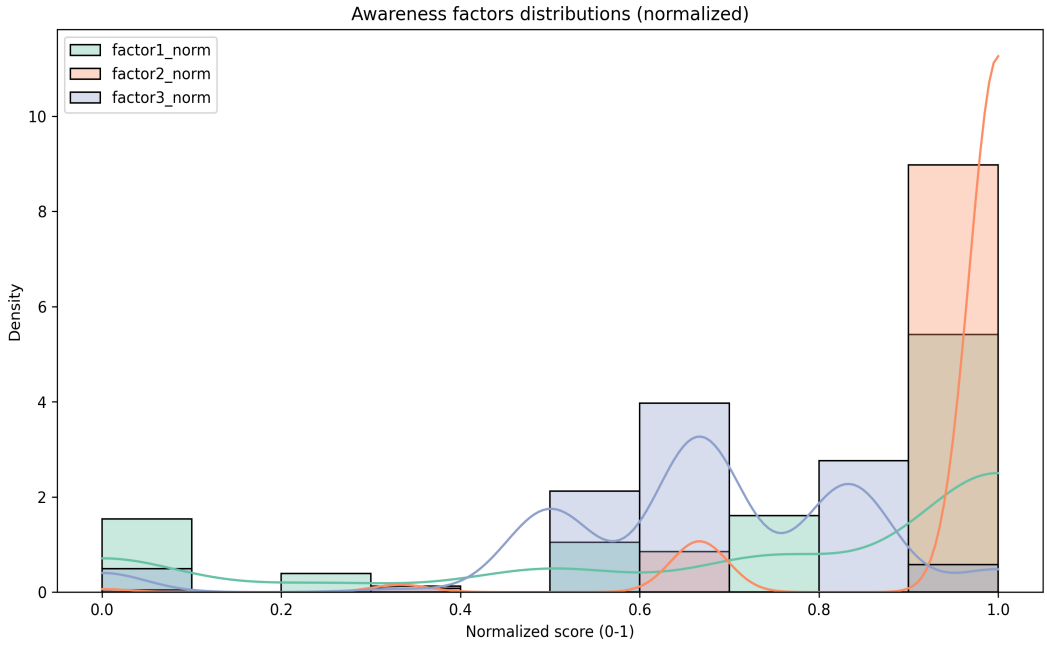
The table below summarizes the central tendency and dispersion for each awareness factor (normalized between 0 and 1).

Unnamed: 0	mean	median	sd	min	max
factor1_norm	0.7243682310469314	1.0	0.3688954692024515	0.0	1.0
factor2_norm	0.958363417569194	1.0	0.1351129471492217	0.0	1.0
factor3_norm	0.6611311673061372	0.666666667	0.206590601132129	0.0	1.0

Factor 1 shows moderate variability (SD≈0.37), Factor 2 is more stable (SD≈0.14), and Factor 3 shows moderate spread (SD≈0.21).

2. Distributions

The figure below displays the distribution of normalized awareness factors. These plots provide visual insight into the spread and central tendency of awareness scores.



3. Correlation with Knowledge Score

Correlation coefficients indicate the strength of association between knowledge and awareness factors.

Unnamed: 0	pearson_r
factor1_norm	0.719
factor2_norm	0.109
factor3_norm	0.676

Factor 1 (r≈0.72) and Factor 3 (r≈0.68) show strong positive relationships with Knowledge, suggesting that higher knowledge corresponds to greater awareness in these domains. Factor 2 (r≈0.11) exhibits a weak relationship, indicating it may represent a distinct perception component.

4. Regression Analyses

Simple linear regressions were conducted with knowledge score as a predictor for each awareness factor. Coefficients (β) represent the expected change in awareness per unit increase in knowledge.

Factor 1 Regression Summary
Skew: -0.830 Prob(JB): 4.10e-36
Kurtosis: 2.741 Cond. No. 8.15
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Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Factor 2 Regression Summary
Skew: -3.787 Prob(JB): 0.00
Kurtosis: 19.944 Cond. No. 8.15
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Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Factor 3 Regression Summary
Skew: 0.209 Prob(JB): 0.000207
Kurtosis: 2.655 Cond. No. 8.15
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Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

Results indicate that knowledge score significantly predicts all awareness components, with the strongest effects on Factors 1 and 3 ($\beta \approx 1.28$ and $\beta \approx 0.67$).

5. Interpretation and Implications

The awareness measures show good variability and strong association with knowledge in two of the three domains. This suggests that participants with higher factual knowledge tend to report higher awareness of environmental issues and microplastic impacts. The weaker correlation in Factor 2 indicates that some perceptual aspects of awareness may be less dependent on factual knowledge.

End of Report.