Awareness Analysis Summary Report

Generated automatically from the DKAP awareness-knowledge dataset.

1. Overview

This report summarises the relationships between individual awareness items (Q8–Q29), knowledge scores, and six respondent clusters. The analyses include Pearson correlations, OLS regressions, and one-way ANOVA tests followed by post-hoc Tukey comparisons where applicable.

2. Correlations between Awareness and Knowledge

The table below shows Pearson correlation coefficients between each awareness question and the normalised knowledge score. Higher r-values indicate stronger associations.

Question	Pearson r	p-value
Q8	0.084	0.002
Q9	0.054	0.045
Q10	0.116	0.0
Q14	0.542	0.0
Q19	0.418	0.0
Q21	0.503	0.0
Q24	0.734	0.0
Q29	0.555	0.0

Items Q14, Q19, Q21, Q24, and Q29 show strong and statistically significant correlations ($r > 0.4$, $p < 0.001$), indicating they are closely aligned with knowledge levels. In contrast, Q8 and Q9 display weak associations.

3. Differences in Awareness Across Clusters

A one-way ANOVA was conducted to test whether mean awareness scores differ significantly across the six knowledge-based clusters. Results are reported below.

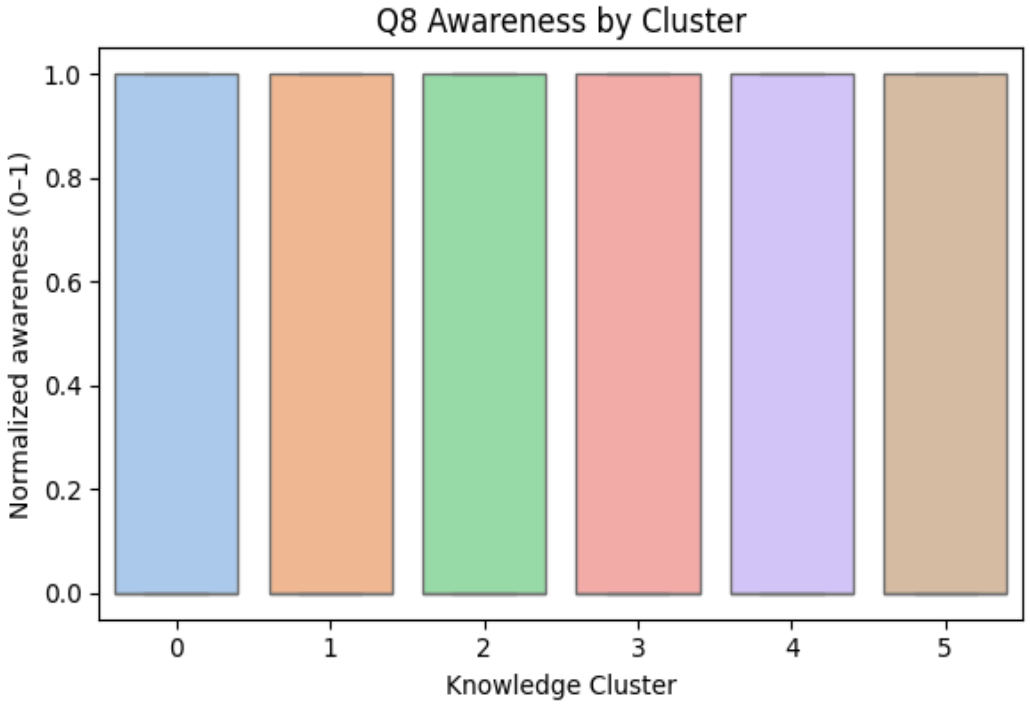
Question	F-statistic	p-value
Q8	2.453	0.032
Q9	1.777	0.115
Q10	4.935	0.0
Q14	4.286	0.001
Q19	1.352	0.24
Q21	4.726	0.0
Q24	4.853	0.0

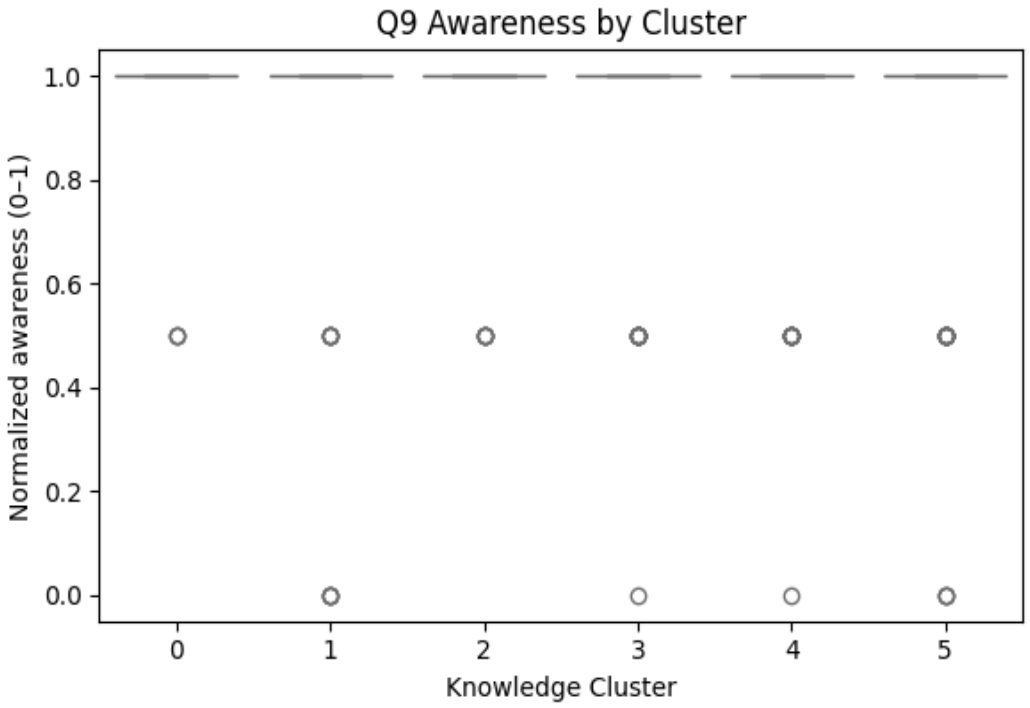
Q29	4.891	0.0

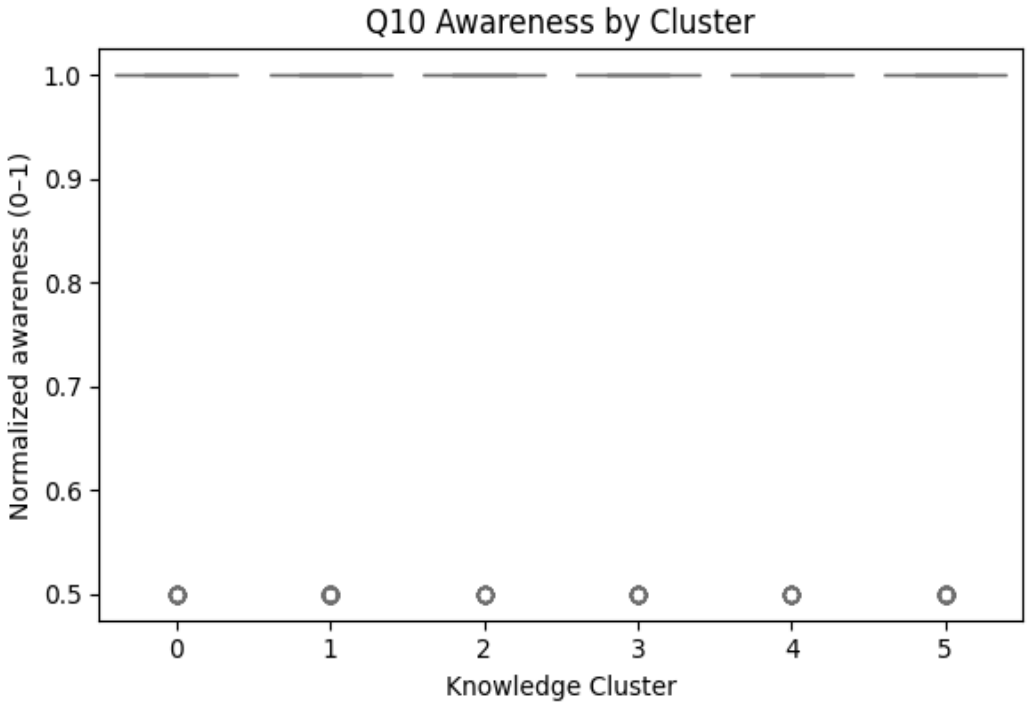
Questions Q10, Q14, Q21, Q24, and Q29 show significant between-cluster differences ($p < 0.01$). These results suggest that awareness of these topics varies substantially depending on the respondent's cluster membership, likely reflecting differing knowledge and engagement levels.

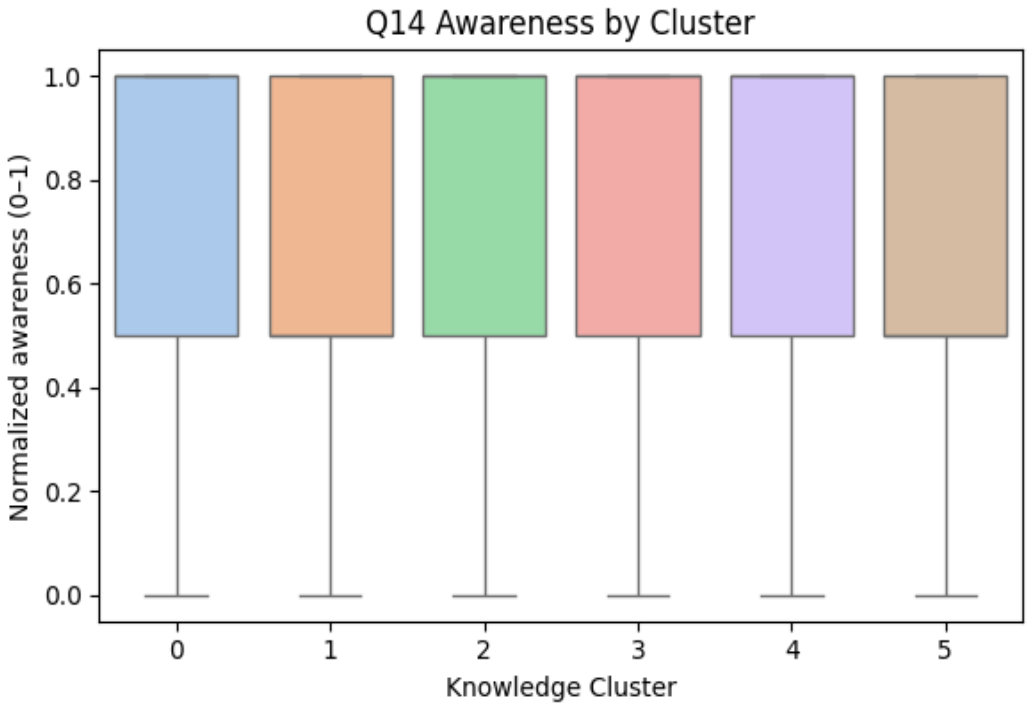
4. Awareness by Cluster (Boxplots)

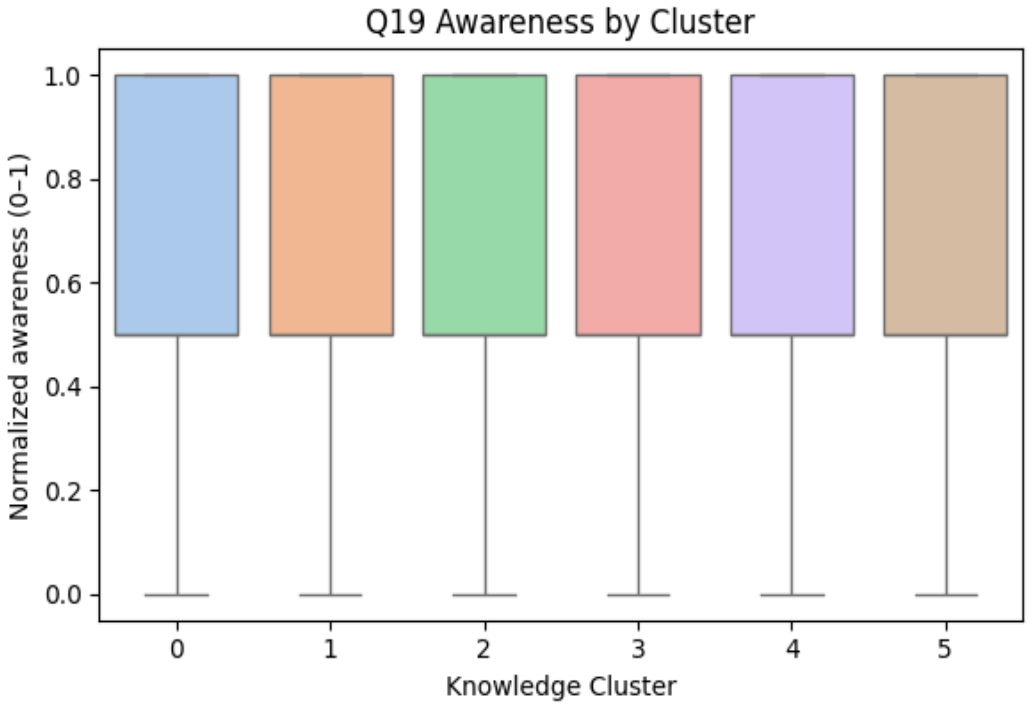
The following figures illustrate the distribution of awareness scores (normalised 0–1) across the six knowledge clusters for each question. The plots provide visual confirmation of the ANOVA findings.

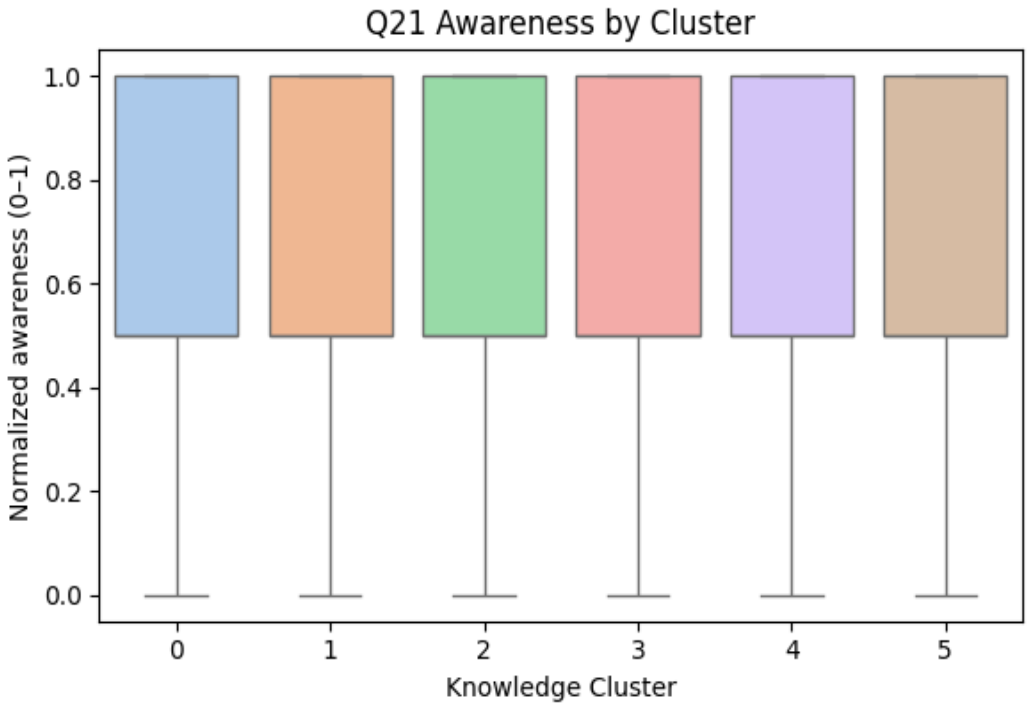


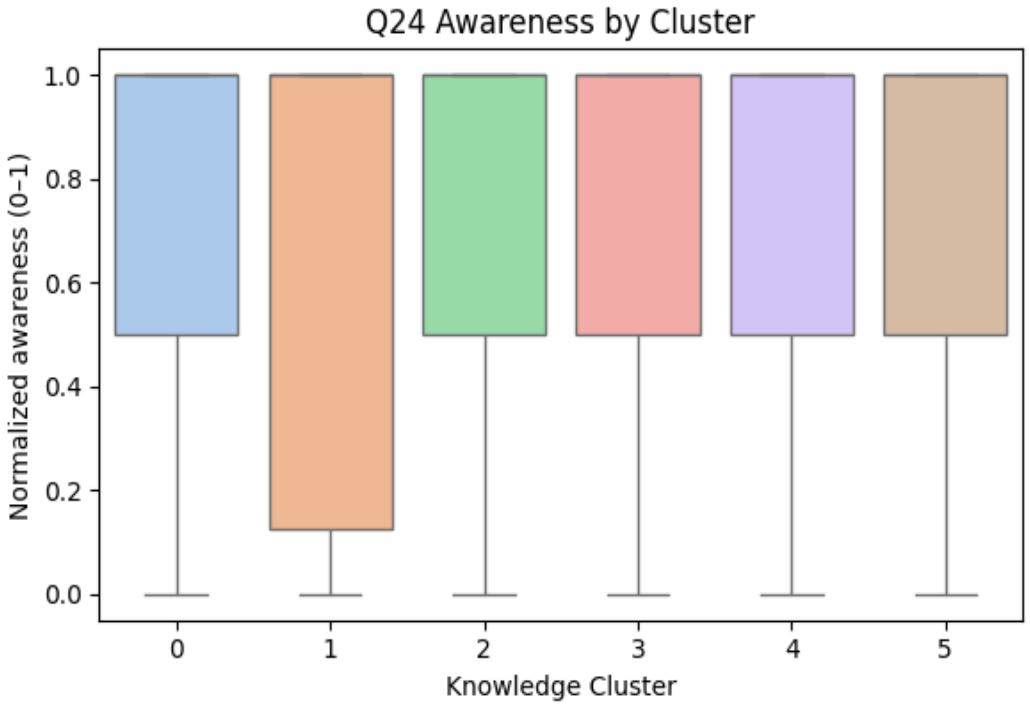

Q9 Awareness by Cluster
Normalized awareness (0–1)
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
Knowledge Cluster


Q10 Awareness by Cluster
Normalized awareness (0–1)
1.0
0.9
0.8
0.7
0.6
0.5
0
1
2
3
4
5
Knowledge Cluster


Q14 Awareness by Cluster
Normalized awareness (0–1)
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
Knowledge Cluster


Q19 Awareness by Cluster
Normalized awareness (0–1)
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
Knowledge Cluster


Q21 Awareness by Cluster
Normalized awareness (0–1)
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
Knowledge Cluster


Q24 Awareness by Cluster
Normalized awareness (0–1)
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
Knowledge Cluster

5. Interpretation Summary

Overall, results confirm a positive association between knowledge and awareness levels. Cluster analysis further indicates heterogeneity across respondents, particularly for items Q14 (environmental implications), Q21 (microplastic contamination), Q24 (knowledge of MP risks), and Q29 (mitigation awareness). These elements may represent the most sensitive indicators of awareness disparities within the population sample.

Report automatically generated by Python (ReportLab).