

COMPARATIVE EVALUATION OF DATA ACQUISITION SUPPORT METHODOLOGIES FOR PROJECTIVE MAPPING: PAPER-BASED, SCREEN-BASED AND NEW DIGITAL SENSOR APPROACH, USING CANNED FISH PRODUCTS

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RATIONAL



Figure 1. Paper-based PM

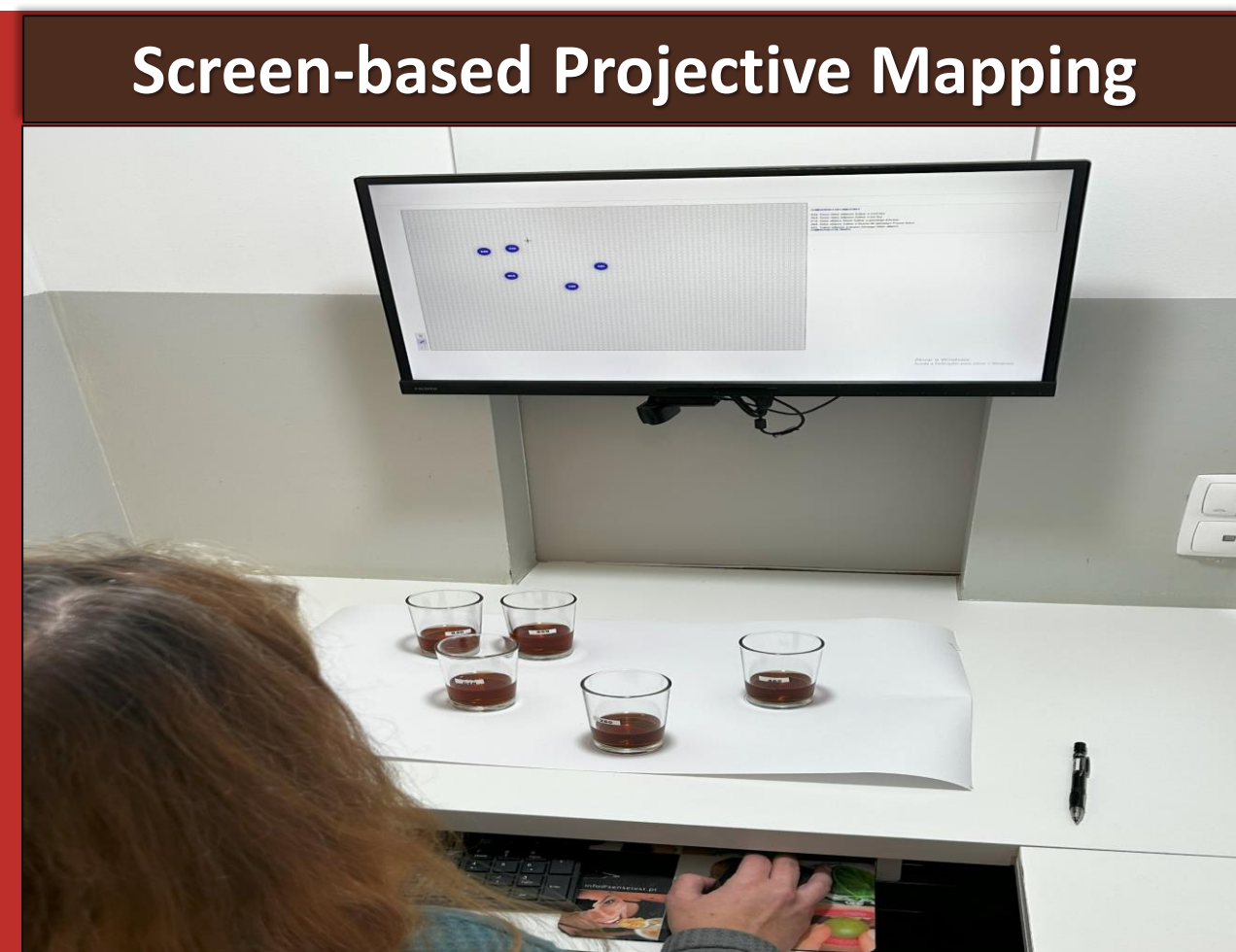


Figure 2. Screen-based PM positioning

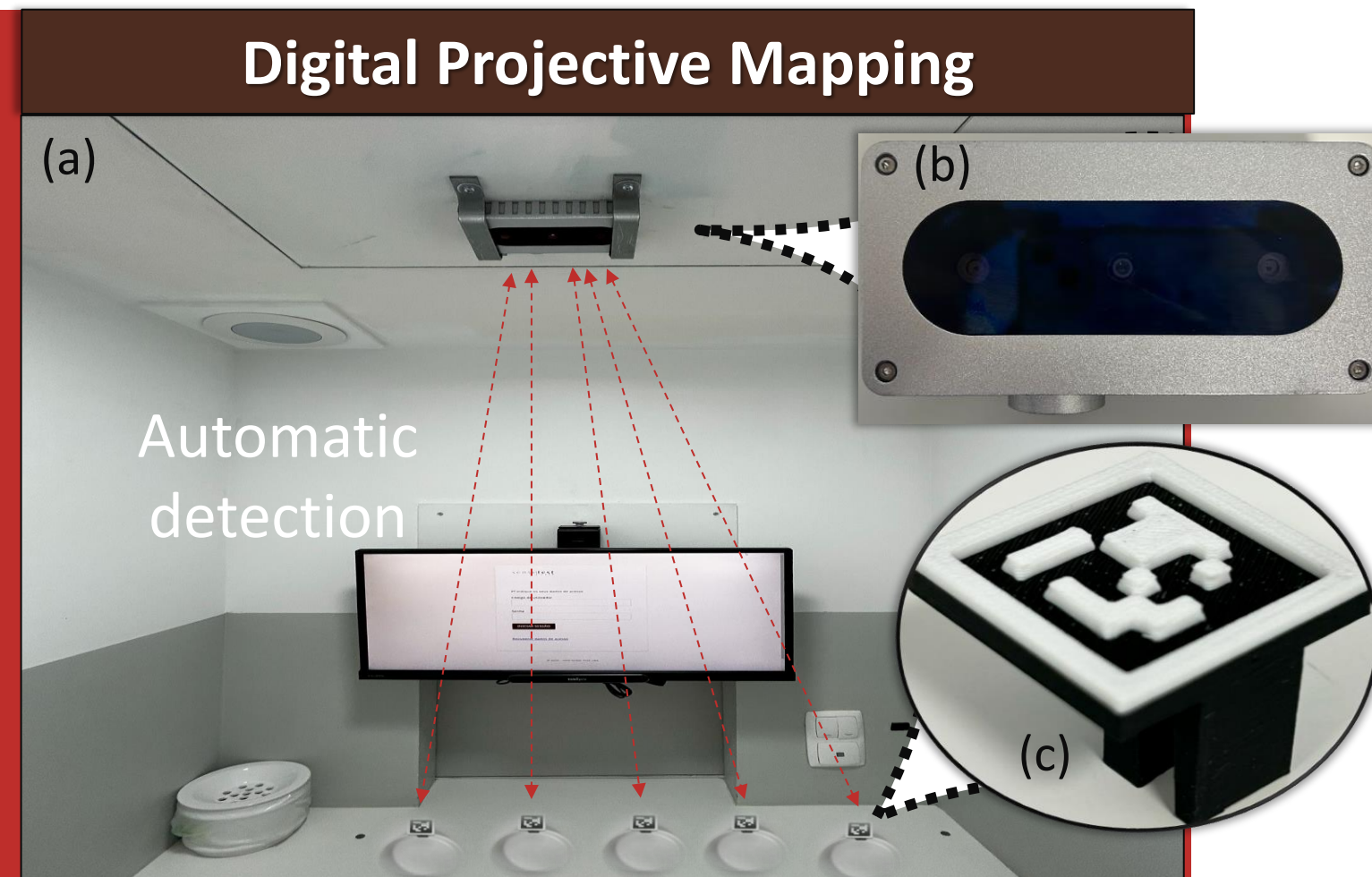
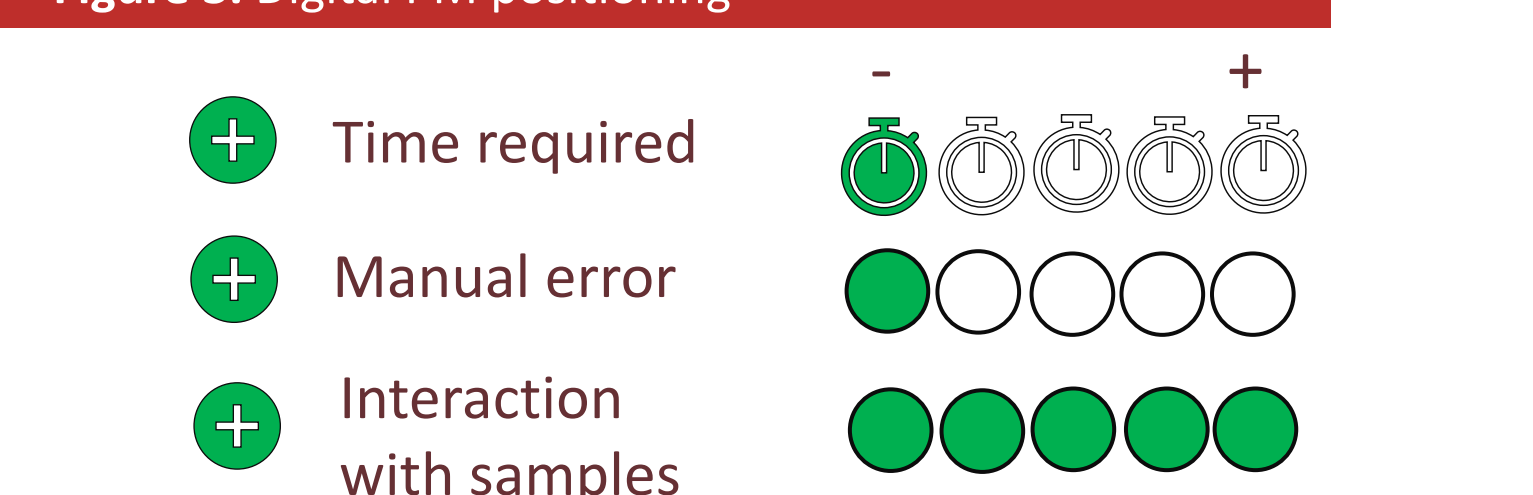
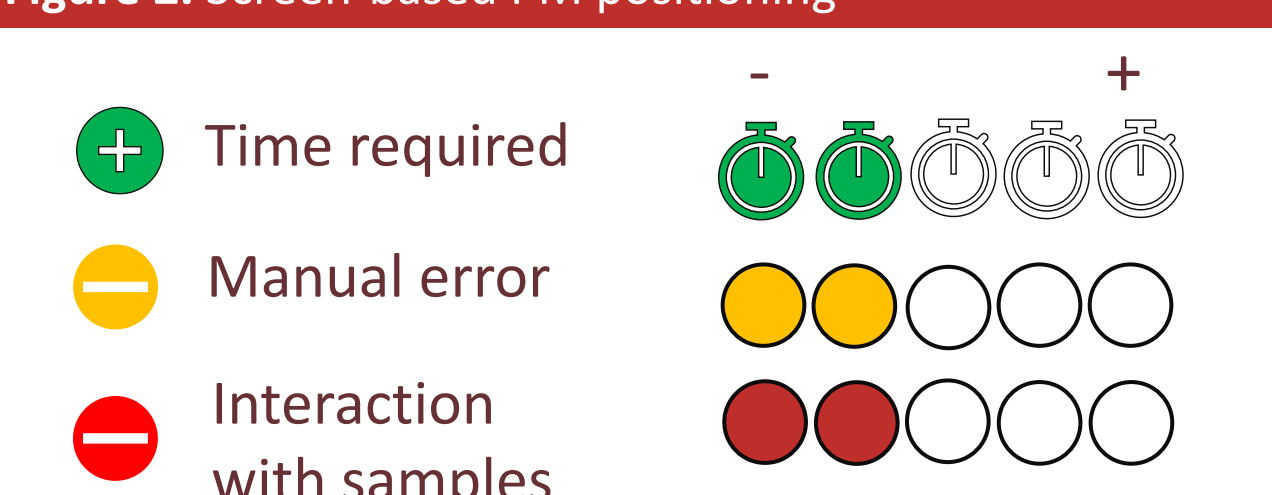
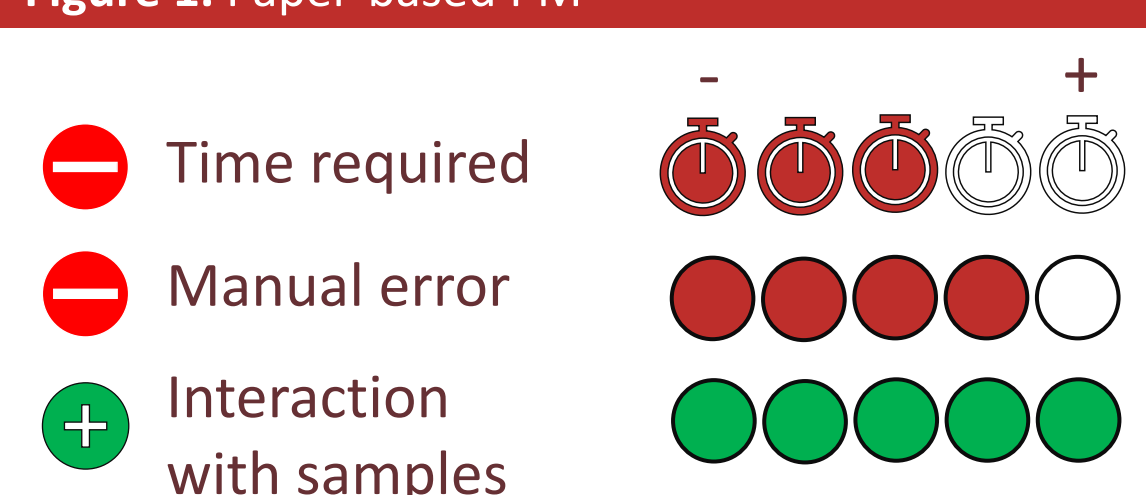


Figure 3. Digital PM positioning



METHODOLOGY

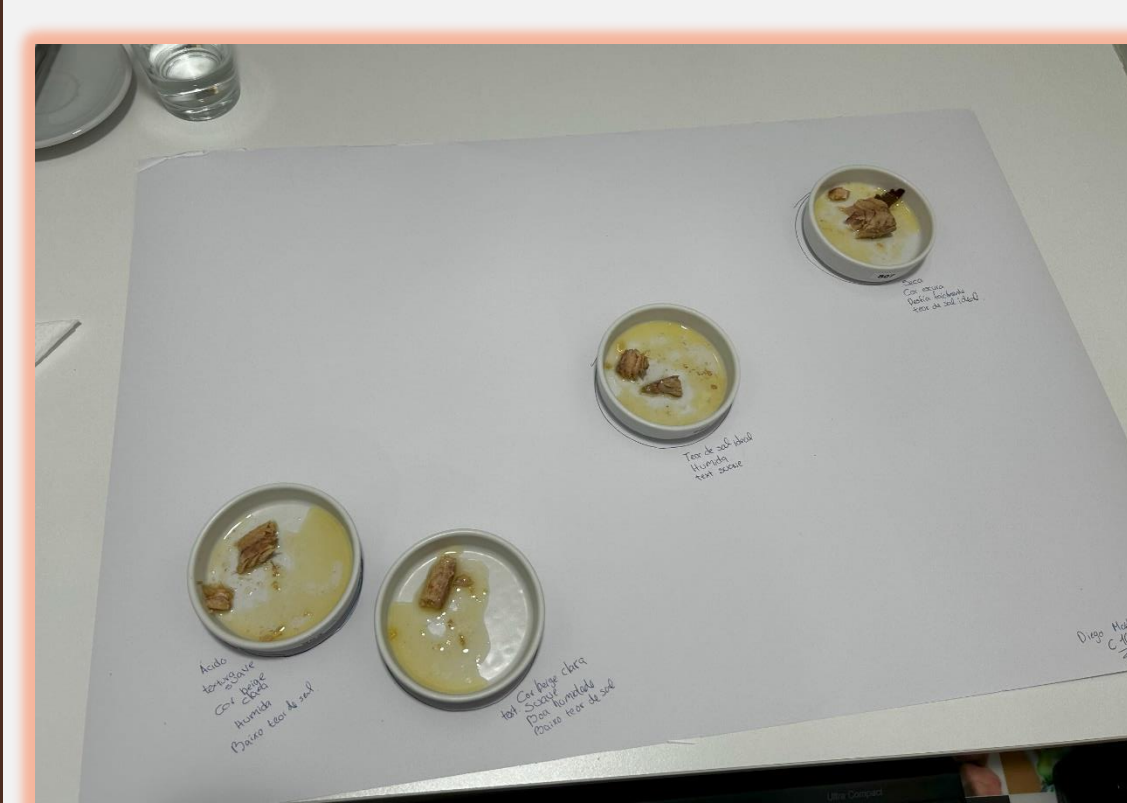


Figure 4. Paper-based PM positioning example

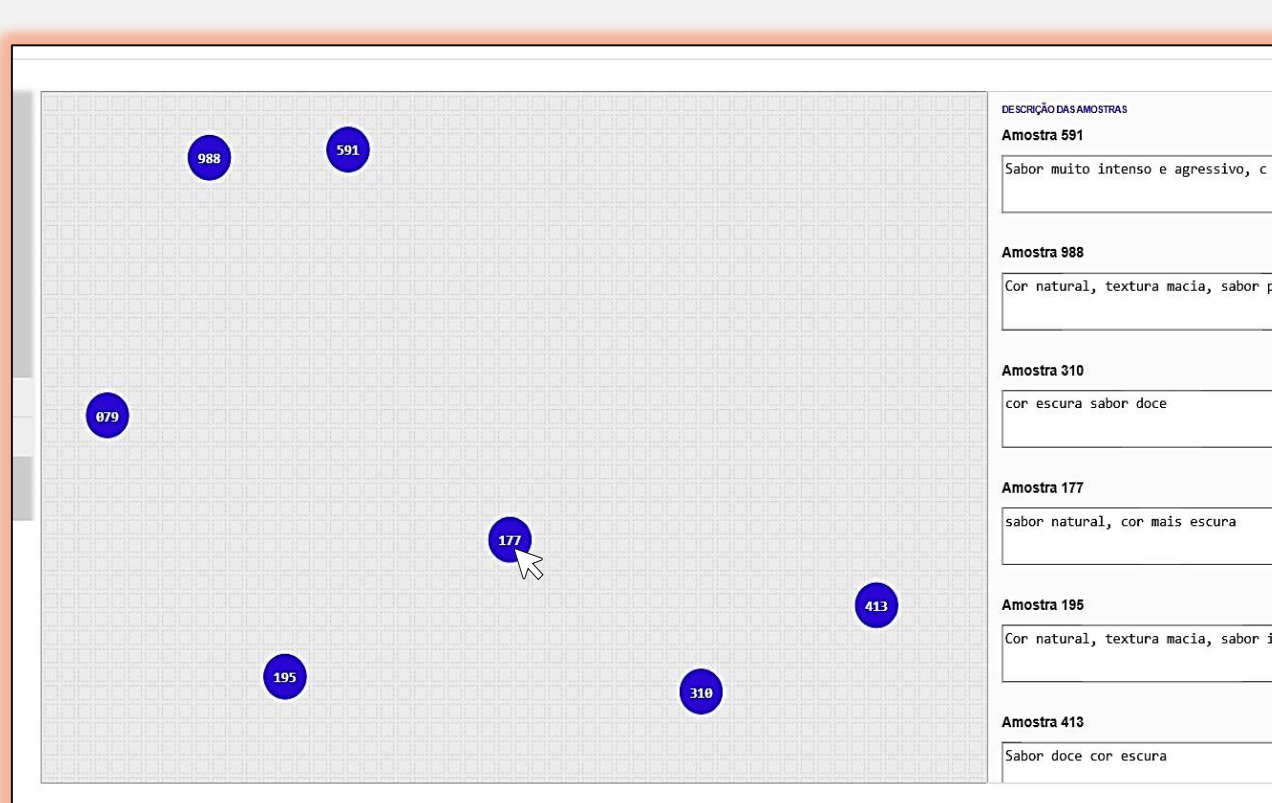


Figure 5. Screen-based PM positioning layout

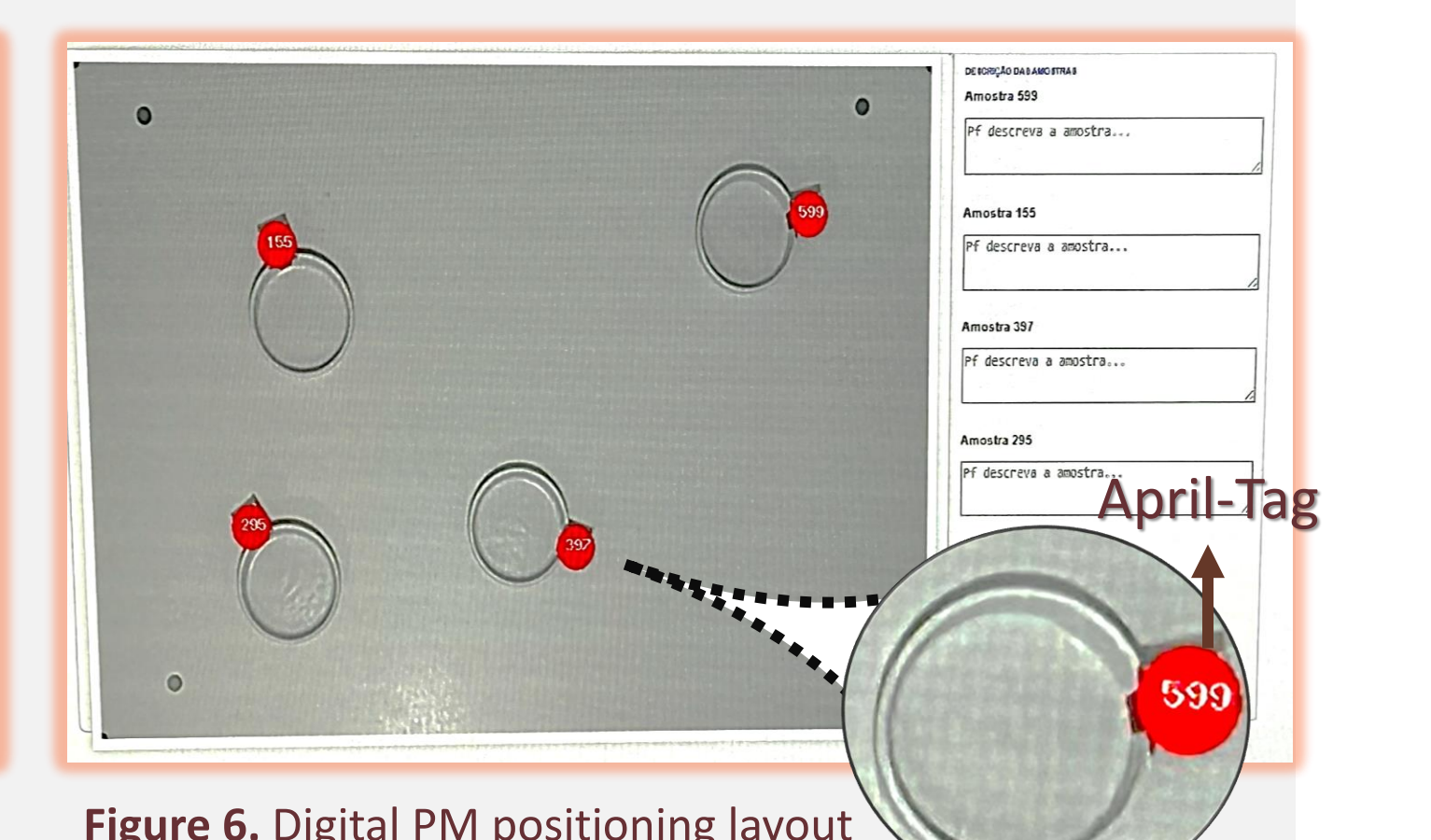


Figure 6. Digital PM positioning layout

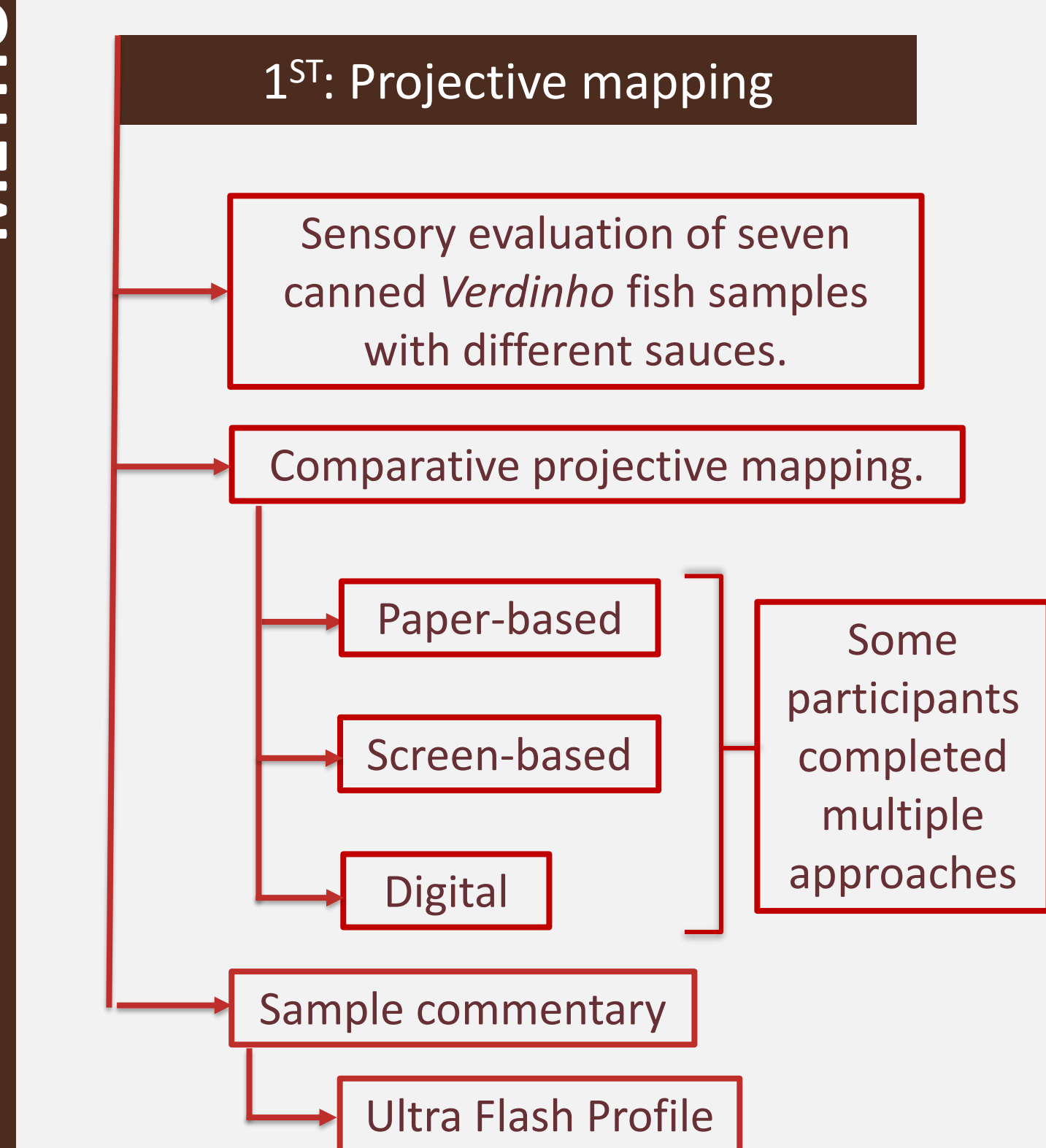


Figure 7. Projective mapping session flowchart

TECHNOLOGY VALIDATION

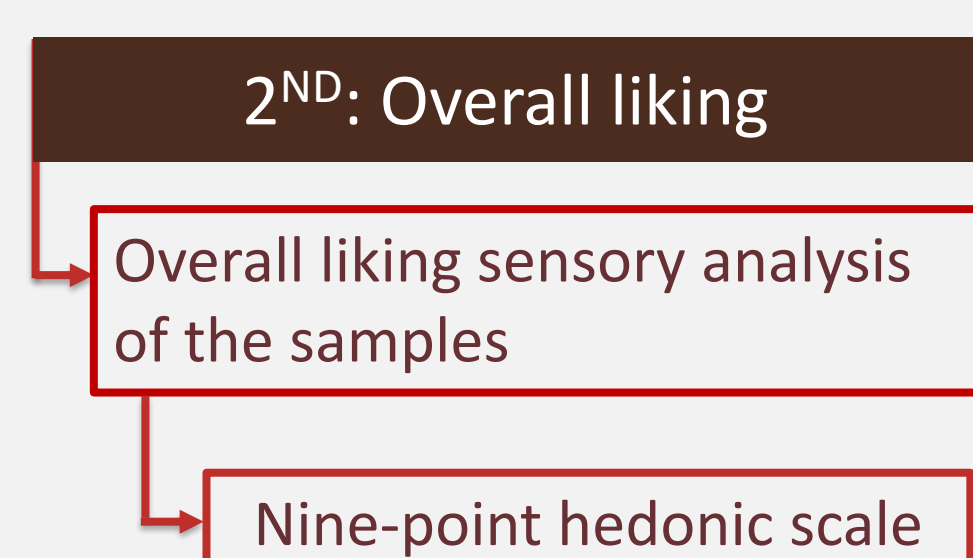


Figure 8. Verdinho canned fish samples.

Panel characterisation

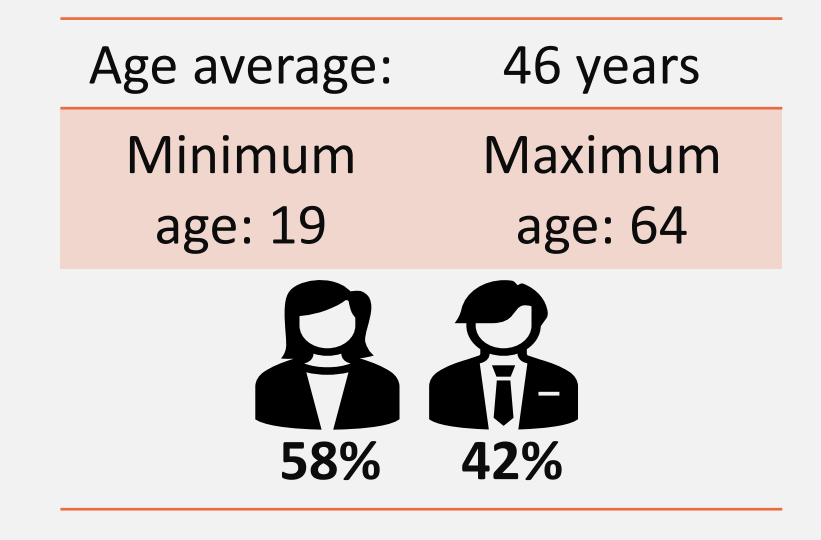


Figure 9. PM session panel characterization

Cognitive Style

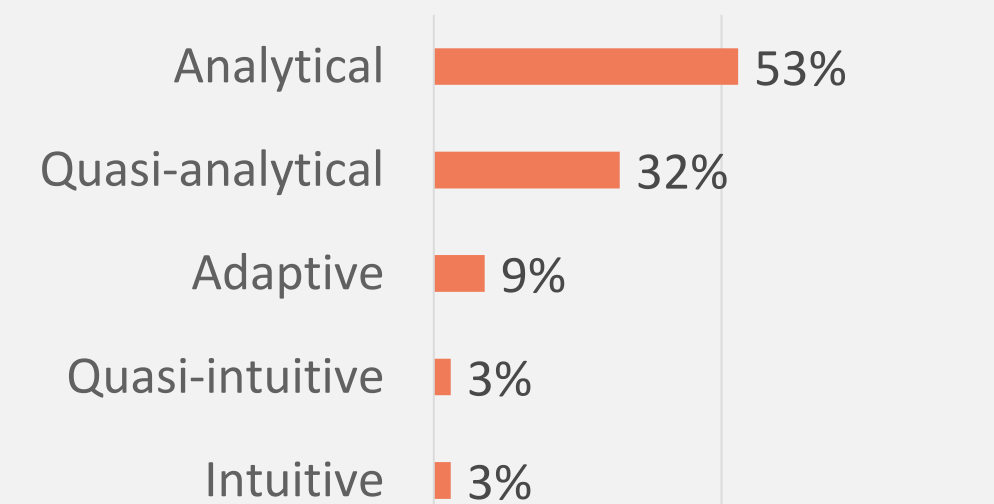


Figure 10. Panellists' cognitive style in percentage

RESULTS

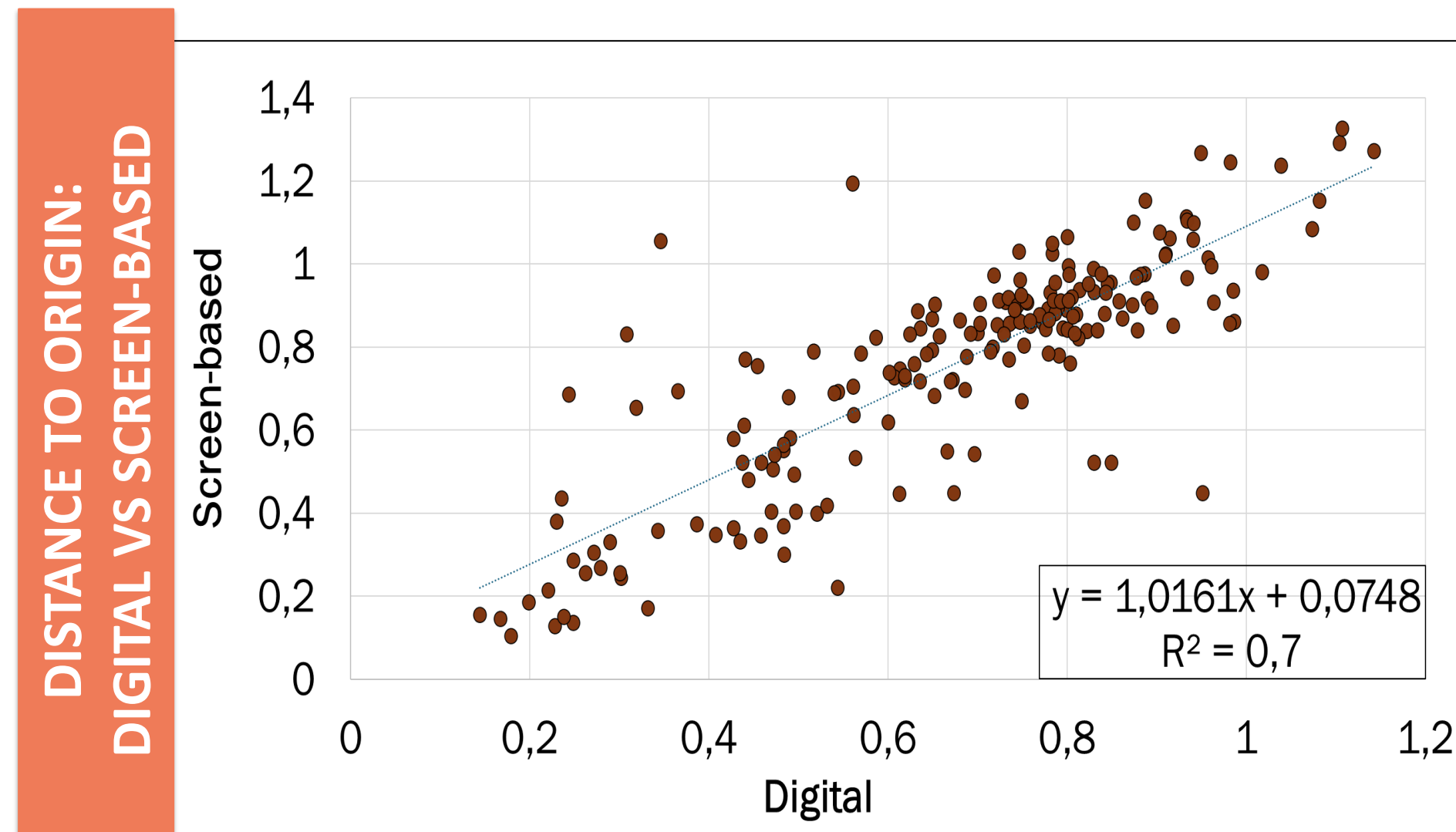
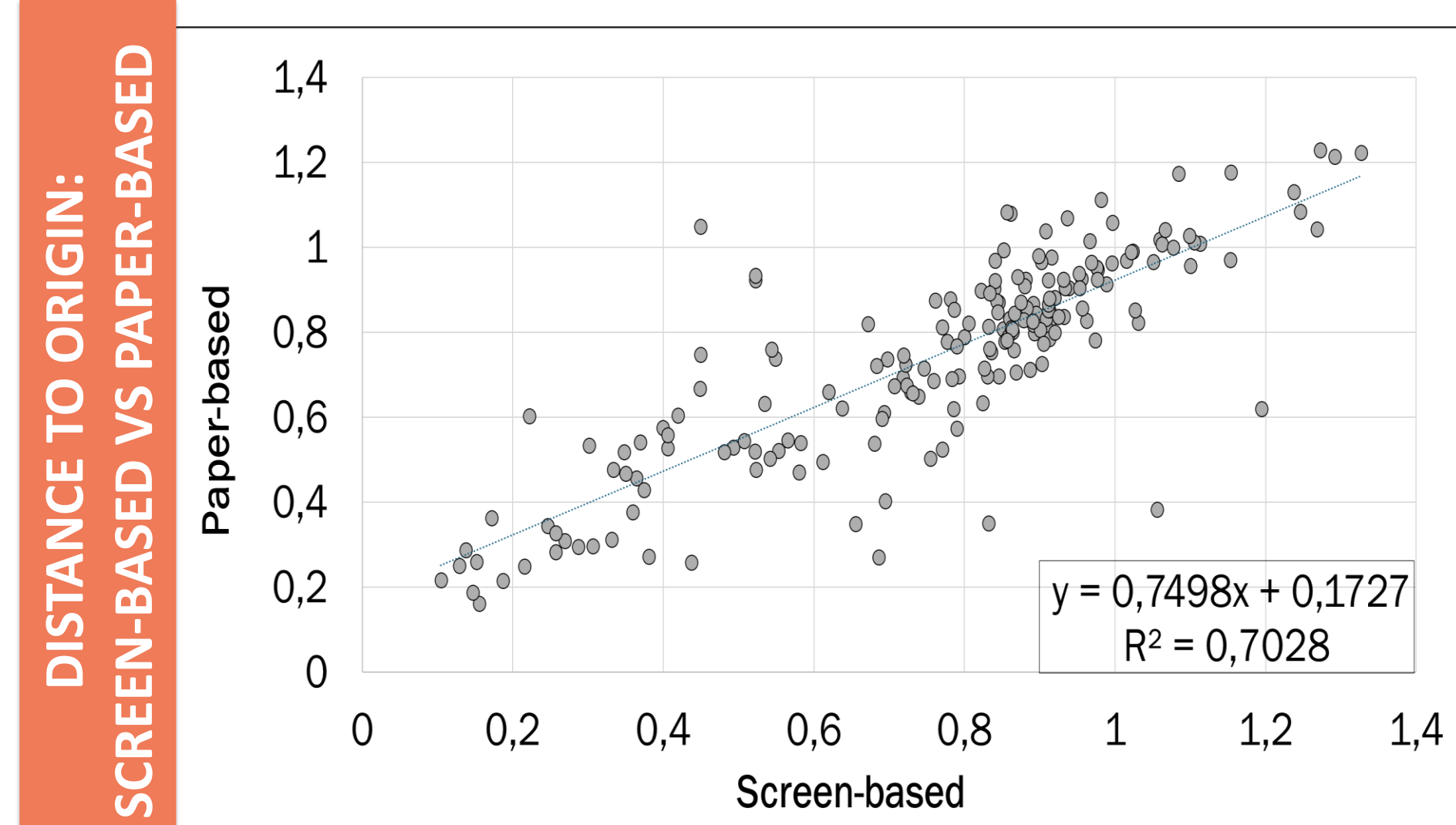
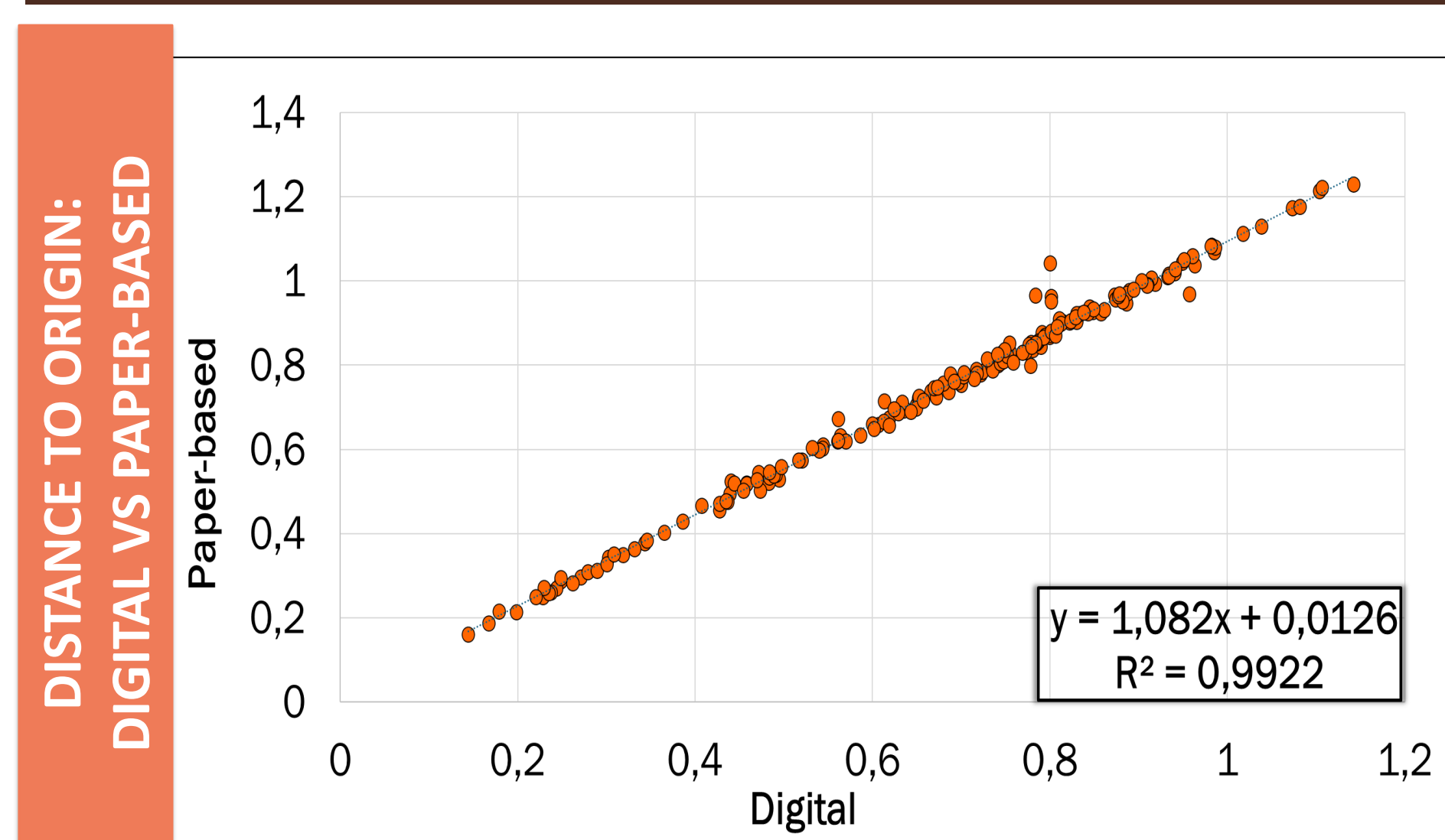


Figure 11. Projective mapping method comparison based on the distance of every coordinate to the origin of measurement.

CONCLUSIONS

- ✓ Screen-based PM offers a user-friendly and practical alternative to traditional methods.
- ✓ The Digital PM technology developed by Sense Test represents a significant advancement in sensory analysis. It minimises errors while preserving participant interaction with the products. This innovation is setting a new standard for efficient, accurate, and scalable data acquisition in sensory science, driving faster adoption across both research and market applications.



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Projective Mapping technology development

The digital PM exhibited a higher adjustment to the original paper-based method, with an R^2 value of 0,9922 in comparison with the screen-based method with an adjustment value of 0,7028.

In contrast, the comparison between the digital PM and the screen-based PM showed a lower but moderate adjustment between approaches, with an R^2 value of 0,7.

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