

# Design and usability of IndagApp: an app for inquiry-based science education

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## IndagApp

Inquiry is a didactic methodology that promotes the development of scientific competencies and the meaningful learning of science. However, its implementation in the Spanish educational context faces various barriers, such as the lack of both resources and teacher training.



## Objective

The objective of this study was to design and evaluate the usability of IndagApp; an ICT resource that facilitates the teaching of science by inquiry with students aged 10 to 14.

## Method

A convergent mixed methods design was used, with an intentional sampling composed of a panel of 14 experts from different disciplines.



## Results

The quantitative results showed high usability of the app, while the qualitative ones allowed for improving the user interface, including scaffolding strategies and aligning the resource with the curricular demands.

## Improvement

From this process, an improvement of the app was made, which in its improved version consists of ten inquiries that address the central contents of the new LOMLOE curriculum. In addition, support resources have been designed for its implementation, such as guide programs for teachers and printable class sheets for students.



## Conclusion

Taken together, this resource is relevant and innovative for the didactic transposition of inquiry, providing the Ibero-American educational and research community with a valuable tool for the teaching of science. Future research delving into the usage and perceived usability among potential users in Primary and Secondary Education is warranted.

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