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SCIENTIA

# Science education at MUHNAC – ULISBOA: Evaluation & Research

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Non-formal education in scientific museums has been one subject of research in order to measure the effectiveness of initiatives among different audiences, responding to specific objectives, and to promote the development of methodologies that may facilitate results.

In the last decades, research about science learning has highlighted the term "Inquiry". The inquiry-based science education (IBSE) methodologies promote the experience in real contexts, approaching to daily life in order to stimulate skills for solving problems. Scientific museums are privileged places in this scope, allowing the different audiences a direct interaction with real objects and a self-guided research that responds to scientific questions motivated by the exhibitions or activities.

At the same time, the Team-Based Inquiry (TBI) methodology is highlighted as a practical teamwork approach that aims to enable education professionals, also in scientific museums, to obtain the data and results necessary to constantly improve activities and to increase the engagement of audiences. This methodology is also based on the inquiry-based premise, engaging the education team in the formulation of questions about activities that leads to the research (evaluation) for results and to the reflection and discussion about such data in order to increase the effectiveness among different audiences.

The National Museum of Natural History and Science (MUHNAC-ULisboa) is a partner in two European projects: the *Big Picnic, Big Questions* project, designed to engage audiences in a reflection about the future of human food, applying the IBSE methodology in activities and TBI in their evaluation; and the *Learn to Engage* project in order to disseminate these methodologies in the advanced training of the professionals of scientific museums and promote the success of initiatives to engage audiences. Results obtained so far demonstrate the importance of evaluating educational initiatives and of using new methodologies both to enhance their effectiveness and the constant improvement towards the promotion of science education.

**Thursday, March 8, 2018**

**FCUL (Building C2), 12h00-13h00, room 2.2.14**

