

## Formation of Mediators of Science Square of Vitória, ES: A Proposal for a Conceptual Approach to the Hand Lift Equipment

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### *Introduction*

The **Science Square**, located in Vitória, Brazil facing the sea was opened in 1999 and is one of the four **Centres of Science, Education and Culture** linked to the Municipal Department of Education. The collection is exposed in an open-air area of approximately 7,500 m<sup>2</sup> at seashore with gardens and free circulation for visitors and accessibility for wheelchair users. The collection consists of equipment such as Solar Scale System, Sundial, Sound Mirror, Swings, Levers, Inclined Plane and **Hand Lift** as shown in Figure 01.



**Fig. 1:** Science Square Logo and Hand Lift Equipment

### *Mediators at Science Square*

Science Square mediators are mostly undergraduate students in Physics and develop centre activities. There is a continuous formation process of new mediators for promoting the adequate attendance to visitors: besides interactivity based on a exploratory attitude focusing on discussion and dialogue with the visitor, activities include exploration of the scientific concepts involved in each equipment focusing on "**opening the black box**" strategy for each device and avoiding the classic division between theory-practice.

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## Hand Lift Exploratory Guide

An Explanatory Guide about the Hand Lift was prepared in the form of a plasticized insert using front and back and submitted to the evaluation of three judges to verify the existence of conceptual, diagram and concordance errors as shown in Figure 02. After this evaluation process, the final version of the insert to be used with the mediators was produced.

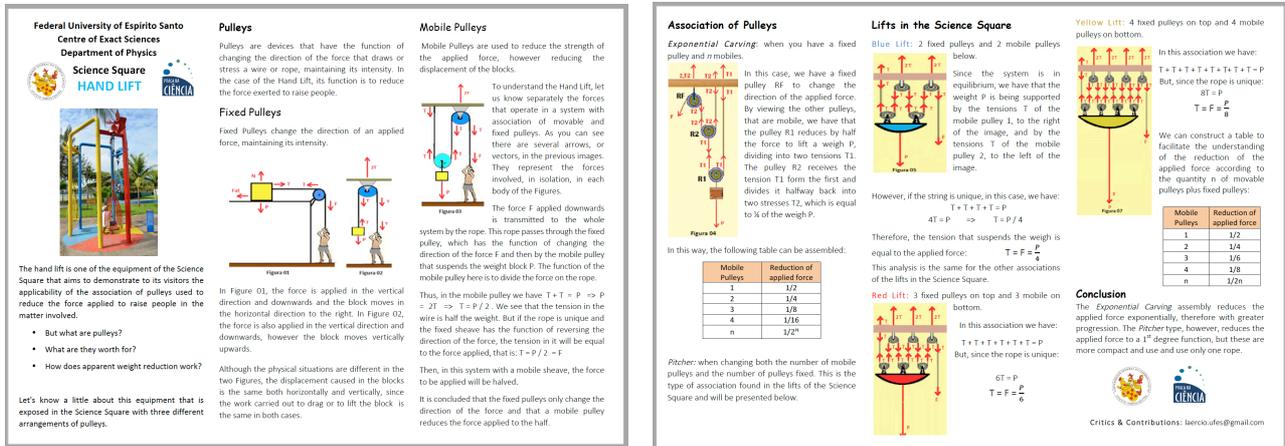


Fig. 2: Science Square Brazil Hand Lift Explanatory Guide

## Mediators Capacity Development

The formation of mediators was structured in three moments:

- i. Initial observation of the mediation process developed with visitors of the Science Square;
- ii. Formation activity of mediators using the Hand Lift Explanatory Guide;
- iii. New observation of the mediation process developed with visitors of the Science Square.

## Outcomes

Results revealed that the **Hand Lift Explanatory Guide** was positively evaluated by the mediators, being better evaluated and accepted than the current hand-out in use. Even physicists mediators reported that Explanatory Guide helped them to understand their own misconceptions and their "lack of conceptual knowledge that should have been acquired at secondary school." The observation and analysis of the mediators' performance after the formation activity with the Explanatory Guide landed support to these accounts.

## Final Comments

These results reaffirm the classic responsibility of capacity development of science centres and museums that must be a built-in and continued action on daily basis of these loci so that they can operate in resonance with their mission.

### *References*

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