



**“IDENTIFYING MANAGEMENT PRACTICES
FOR THE IMPLEMENTATION OF OBEYA
ROOMS IN INVESTMENT PROJECTS IN A
CONSTRUCTION STAGE”**

Authors: José L. Salvatierra & Luis Fuentes

Introduction

- What it's a Obeya Room?

Obeya Room (OR) is a tool developed in the context of the Lean philosophy. It can be defined as a physical space that, complemented by a methodology of continuous improvement oriented to waste reduction or elimination, improves communication and coordination of a project's teamwork, thus optimising the time consumed in coordination and planning meetings.

Obeya is a Japanese concept that is translated into Spanish as "large room"; however, it is currently known by other names, such as "War Room", "Big Room", "Control Room", "Discovery Room", "Visual management room", among others, depending on the company or author (Aasland, et al., 2012; Siavash Javadi, 2012)

Introduction

- Previous results

- Numerous authors highlight the benefits of implementing OR compared to traditional meetings. The main aspects enhanced by this tool are detailed below:

- ✓ Improvements regarding meeting lengths
- ✓ Improved attitudes of participants
- ✓ Enhanced fulfillment and quality of commitments
- ✓ Effectiveness of continuous improvement cycles
- ✓ Enhanced coordination among specialists
- ✓ Promotes problem solving through collaborative
- ✓ Enhanced Transparency
- ✓ facilitates problem identification or project deviations
- ✓ Etc.

- Visual Management
- Communication and Information Flow
- Collaboration
- Problem Solving

(Retamal Pardo, 2016), (Mikati, et al., 2007), (Khanzode, 2018), (Andersson and Bellgran 2009, (Alaassar, 2017)

Introduction

- **Research Opportunity**

There is no single correct definition or function for working with the Obeya Room.

- **Research Objective**

This study will be responsible for disseminating this tool by identifying common management practices according to the opinions of national and international experts who have participated in the design and management of the OR.

Methodology

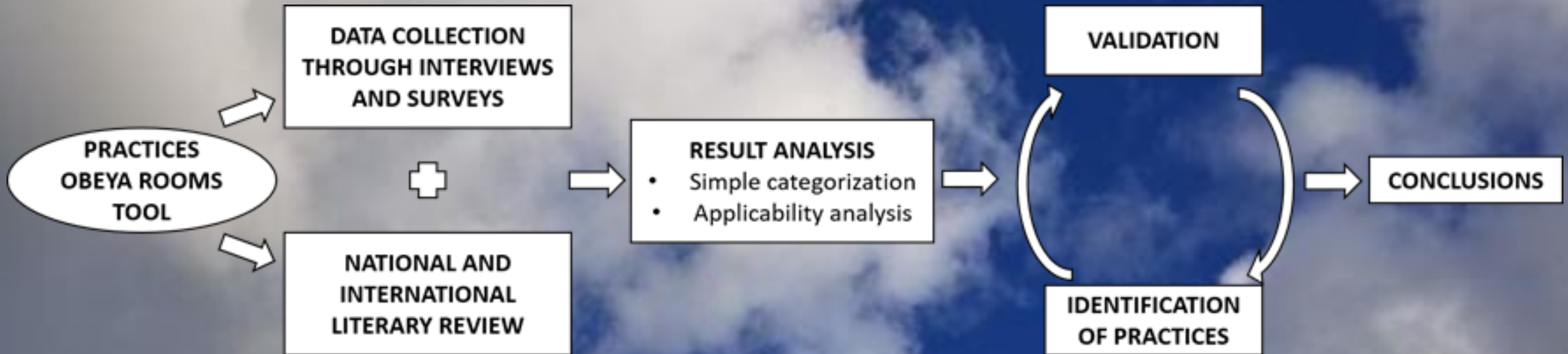


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Figure 1: Work Methodology Scheme



Study Sample



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Table 1: Characterization of Lean experts consulted

Initials	Country	Expertise Field	Position	Experience in OR
P.1	Chile	Mining	Innovation and continuous improvement	Participation
P.2.	Mexico	Housing	Construction Operations Director	Design and implementation
P.3.	Spain	Consulting	Lean Management	Design and implementation
P.4.	Chile	Consulting	Lean Transformation Manager	Design and implementation
P.5.	Chile	Mining	Productivity Leader	Participation
P.6	Chile	Mining	Chief operational management and innovation	Participation
P.7	Chile	Mining and telecommunications	Productivity Leader	Design and implementation
P.8.	Mexico	Agroindustry	Lean Manufacturing Coordinator	Design and implementation
P.9	Chile	Consulting	Chief Consultant	Participation
P.10	Chile	Mining	Productivity Specialist	Participation
P.11	Chile	Infrastructure	Lean Implementation Manager	Participation in LPS meetings

OR Practices



- it is possible to identify six main items to characterise an OR in the construction sector: (1) Frequency and Duration, (2) Management of Indicators, (3) Participants and Roles, (4) Stages, (5) Physical Space (room), (6) Rules and Recommendations. Additionally, a dependency with two variables was identified for some Obeya characteristics: Organizational Level and Industry Area, detailed as follows:
- Organizational Level (OL):
 - OL1: It corresponds to meetings held by senior managers of companies executing the project, whose visions are global for the project.
 - OL2: It corresponds to meetings held by intermediate managers of companies executing the project, whose visions are focused on coordinating and taking actions to fulfill the program.
 - OL3: It corresponds to meetings held by the project workforce, whose vision is the fulfillment of partial or daily goals.
- Industry Area: Mining, Infrastructure and Housing or multi-story building

OR Practices



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Characteristics of the OR Roles

Aspect	Characteristics		
	Moderator	Participant	Owner
Functions	Leading the meeting, following the established routine and times, asking for explanations and encouraging the management of commitments to participants when there are deviations in the management indicators, agreeing and defining those responsible for the commitments.	Paying attention to results presentation of the different areas, if responsible for an area; updating and presenting their boards when appropriate; participating and proposing solutions by raising important issues that hinder the progress of the project and by committing when appropriate.	Consolidating the meetings' commitments and emailing them to the participants; supervising commitments fulfillment; recording the times per section used in the meeting; ensuring adequate maintenance of the room and managing panel layout modifications when agreed.

Recommended Frequency by Category

	Mining	Infrastructure	Housing
OL1	Biweekly	Weekly	Weekly
OL2	Weekly	Weekly	Weekly
OL3	By turn	Daily	Daily

Recommended Duration by Category

	Mining	Infrastructure	Housing
OL1	1 hour	1 hour	1 hour
OL2	From 30 min to 1:30 hr	1 hour	1 hour
OL3	From 5 to 20 min	From 15 to 25 min	From 5 to 15 min

Conclusions



- This tool's potential benefits can be identified in the literature review and expert opinions: enhancing visual management, improving collaboration, facilitating communication and information flow, and solving problems efficiently.
- Regarding Lean philosophy in construction, it is observed that the OR tool contributes transversally to its principles, for example:
 - First, it allows identification of flow or processes (constructive methods carried out in a project) through transparency in its different areas and the way work is carried out, considering the main problems faced.
 - After identifying the value flow chain, it acts on the third principle: waste elimination. This is mainly possible given the enhanced level of collaboration and coordination, by tackling overproduction wastes, delaying, overprocessing, transport, inventory, movement and quality, without forgetting talent waste, which is addressed by giving voice and space to a greater number of participants in the project.
 - Finally, the last principle of continuous improvement is clearly reflected in the evaluation tools proposed in the standard, which allow finding flaws in the implementation and design, as well as generating space to propose improvements.

Future Work



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- A future research may explore in practice the way these recommendations should be addressed in the design of new OR, and identify their impact in dimensions such as collaboration, time management and decision making process.
- it is possible to mention that a next step would be to establish variables that impact investment projects at the level of KPIs, but also at the level of collaboration and efficiency networks in the coordination and decision-making processes. For example, social networks analysis, which has already been used in construction, may help to identify how this tool favours the progress of projects. Finally, it is important to highlight that the present paper has attempted to summarise the main findings in the identification of common practices for the design and implementation of future Obeyas.