IGLC 2021
LIMA, PERÚ - 29TH ANNUAL CONFERENCE
INTERNATIONAL GROUP FOR LEAN CONSTRUCTION

Improving Non-Repetitive Takt Production with Visual Management

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Agenda

- Introduction
- Research Method
- Visual Management Tools
- Interview Results
- Conclusion

Introduction

- Takt production has several benefits reported in literature, however challenges with lack of commitment in takt control have been presented
- One possible way to potentially leverage the positive effects of takt control is the adoption of visual management (VM) tools
- Study aims to implement VM tools and monitor whether they improve takt control process and further examine how VM can be harnessed to support takt control most efficiently
- Goal was also to improve the VM tools as part of the takt control process

Research Method

- Research strategy: design science research
- Case project for this study is a shopping center, which was a non-repetitive takt production project
- Data collection was conducted by structured interviews on-site, site observation and tracking of takt wagons in the test area

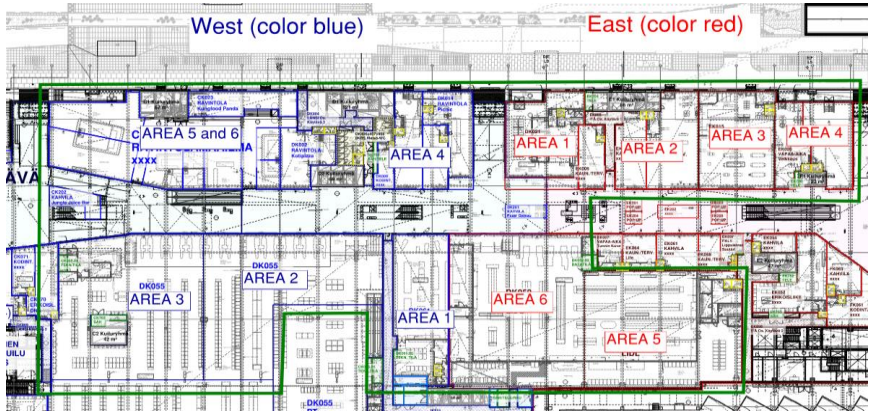


Figure 1. Test area

Visual Management Tools

1. Takt plan visible to site

2. Takt wagon visualization through takt cards

3. Takt area markings on site

Crew coloring related to takt wagons

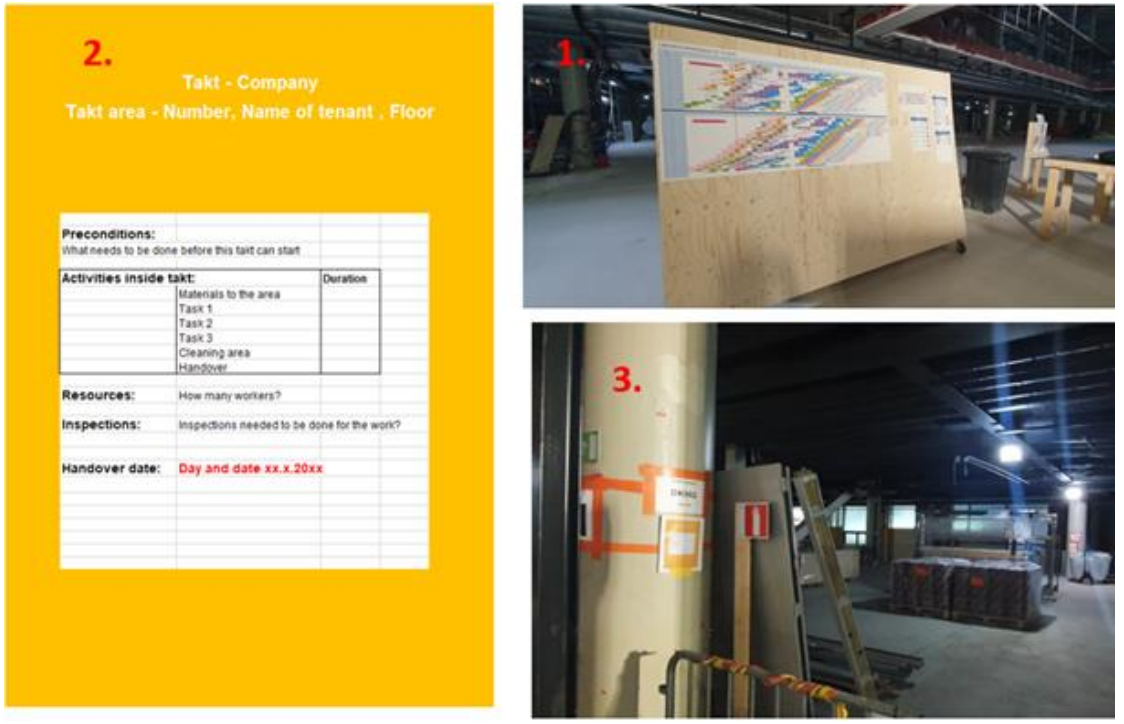


Figure 2. Three VM tools used in this study

Interview Results

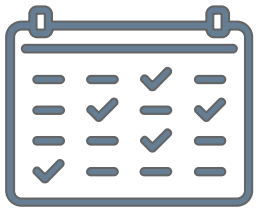
Questions	Results
How well following are met: work preconditions, clarity of schedule, takt areas and work content, working without interference	**4.3 (west) & 4.1 (east)**
Have you seen or used VM tools earlier?	**5 had seen (14%)**
Do VM tools support your work	**”Helps a bit”**
Should the VM tools be located close to workplace or inside site office?	**Close to workplace on site (91%)**
Would you like more VM information on site?	**53% would want more information**
Could you help to create VM tools that support your work?	**50% could help to create VM tools**

Table 1. Interview questions and results

Conclusions

- Takt production itself gave good basis for the implementation of VM tools.
- VM tools can support takt control on site and add commitment.

- VM needs to be introduced early on and collaboratively develop the tools
- Information given needs to be clear, recognizable, right and in real-time



- Takt boards helped problem solving and work coordination
- Takt cards were seen helpful, but need to be improved
- Takt area markings improved understanding and finding the takt area

- VM should be implemented in more projects
- Lack of real-time information brings up trust issues in VM tools overall
- Culture of information management practices needs to change
- More user experiences

THANK YOU!

Contact Details